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TECHNIQUES FOR DEVELOPING FINANCIAL AND RELATED COST-EFFECTIVENESS DATA FOR PUBLIC AND PRIVATELY SUPPORTED AMERICAN COLLEGES AND UNIVERSITIES WERE STUDIED TO FORMULATE PRINCIPLES, PROCEDURES, AND STANDARDS FOR THE ACCUMULATION AND ANALYSES OF CURRENT OPERATING COSTS. AFTER SEPARATE ANALYSES OF INSTITUTIONAL PROCEDURES AND REPORTS, ANALYTIC UNITS AND PROCEDURES WERE DEVELOPED WHICH RESULTED IN PUBLICATION OF AN OPERATING MANUAL FOR THE FINANCIAL ANALYSIS OF CURRENT OPERATIONS OF COLLEGES AND UNIVERSITIES (PART II). THE FIVE TYPES OF COMPARISONS CONSIDERED USEFUL FOR ANALYTIC PURPOSES ARE ILLUSTRATED. (WN)

FINANCIAL ANALYSIS OF CURRENT OPERATIONS OF COLLEGES AND UNIVERSITIES

Cooperative Research Project No. 1853

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Institute of Public Administration
The University of Michigan
Ann Arbor, Michigan

1966

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ACKNOWLEDGMENTS

The Financial Analysis of Current Operations of Colleges and Universities Project was originally conceived by the Association of Governing Boards of Universities and Colleges. Fairly early in the planning stages of the project, that association was joined in its efforts to secure support for the study by the Association of State Universities and Land-Grant Colleges and the State Universities Association, which have since been merged into the present Association of State Universities and Land-Grant Colleges. The project proposal was developed cooperatively by representatives of each of these groups, and they have given continuous support to the effort throughout the entire period of the study. Special recognition should be given to J. L. Zwingle, the Executive Vice President of the Association of Governing Boards, and to Russell I. Thackrey, the Executive Secretary of the Association of State Universities and Land-Grant Colleges, for their continuing interest in the research which has resulted in this document.

When the project received support from the United States Office of Education, an Advisory Committee consisting of three representatives from each of the three original sponsoring institutions was established to serve as a guiding and resource group to the project. The help and advice furnished by this committee to the project staff throughout the entire period of the study have been invaluable. They have furnished advice as to directions which the study should take, support for various extensions and amendments that were necessary in order to complete the project, and also assumed the role of an indispensable consulting body. Representing the Association of Governing Boards of Universities and Colleges on the Advisory Committee were: John W. Newton, Board Member, Texas A & M University; B. C. Jones, Board Member, Pennsylvania State University; and E. L. Angell, Executive Director, Arkansas Commission on Coordination of Higher Educational Finance. From the Association of State Universities and Land-Grant Colleges, the representatives were: David Mullins, President, University of Arkansas; John W. Hicks, Assistant to the President, Purdue University; and Joseph Soshnik, Vice Chancellor for Business and Finance, University of Nebraska. Representing the State Universities Association were: John D. Millett, Director and Chancellor, Ohio Board of Regents; W. K. Pierpont, Vice President in Charge of Business and Finance, The University of Michigan; and Vincent Shea, Comptroller, University of Virginia. During almost the entire period of the study, Mr. Newton served as Chairman of this group. In the spring of 1965, following his retirement from

the Board of Texas A & M University, Mr. Newton resigned as Chairman, and his place was taken by Mr. Angell, who served until the end of the project. Special thanks are due both of these gentlemen.

Very early in the study it was determined that it would be profitable to select a sample of institutions of higher learning in the United States along with a sample of governing boards, coordinating bodies, state budget offices, and regional agencies which could be used as a resource for determining exactly what the problems were in financial analysis, what various approaches were being taken at the present time, and what varying types of activities would be necessary to account for if the entire diverse range of American higher education were to be encompassed within one analytic procedure. For this purpose a sample of 110 colleges and universities within this country was selected to participate in the study. In addition, sixteen governing boards and coordinating agencies, five budget offices, and three regional associations were also included. Each of these institutions and agencies was visited by a staff member of the project and each furnished voluminous materials to the central project office at the University of Michigan. The successful completion of the project would have been impossible without the splendid degree of cooperation which was received from all of these organizations. The institutions and agencies included in this sample are listed in Appendix D attached to this document, and the various individuals visited in each of these institutions and agencies are listed in Appendix I. In every case, each of these persons contributed willingly of their time and knowledge during the institutional visitation period which extended from January to June of 1964.

In addition, seven of these institutions served as an evaluating group for the final project report. Copies of a tentative draft of this report were sent to each of these institutions in the spring of 1965. After this document had been studied by several persons within each of the institutions, they were visited again by a member of the project staff and the reactions of the various administrative and academic staff members to the proposals therein were received. These institutions were the University of California, the University of Missouri, Boston University, Wayne State University, the State College of Iowa, Bowdoin College, and Miami-Dade Junior College. Special thanks are due each of these colleges and universities and their staff members for the additional time which they gave to the study.

In the fall of 1964, a series of preliminary papers projecting various ideas, some of which have been reflected in the final document, were completed by the project staff. At this point it was determined that these papers should be submitted to a group of persons familiar with the administrative and financial problems of higher education in the United States and that these persons should come to Ann Arbor on a consulting basis to give their reactions to these tentative ideas. Persons serving the study in this consulting role were: James A. Blissit, Treasurer, Regents of the University System of Georgia; Arthur D. Browne, Director, Utah Coordinating Council of Higher Education; James I. Doi, Professor of Higher Education, The University of Michigan; L. M. Furtado, Budget Officer, The University of California; R. B. Gilmore, Vice President for Business Affairs, California Institute of Technology; E. Bruce Heilman, Administrative Vice-President, George Peabody College for Teachers; Algo D. Henderson, Director, Center for the Study of Higher Education, The University of Michigan; Thad L. Hungate, Carmel, California; Rt. Rev. Msgr. John F. Murphy, President, Villa Madonna College; John Dale Russell, Bloomington, Indiana; William H. Schechter, President, Tarkio College; and Robert D. Swanson, President, Alma College. Each of these persons spent an entire day in the staff offices, and the suggestions and criticisms which they offered were of extreme value to the final completion of the project. Needless to say, the proposals presented herein represent solely the work of the project staff and should not in any way be attributed to any member of the consulting group.

Other individuals, from time to time, provided a large measure of advice and support which was of tremendous value to the staff. These included Stanford Ericksen, Director of the Center for Research on Learning and Teaching, The University of Michigan; Frederick H. Wagman, Director, University Libraries, The University of Michigan; Paul K. Nance, United States Office of Education; and Edward L. Katzenbach, Director, Commission on Administrative Affairs, American Council on Education. Special mention should be made of the support given by the late Ernest V. Hollis of the United States Office of Education to this project from its conception and the advice and counsel rendered to it by him after it came into being.

Credit should also be given for the cooperation shown by the entire membership of the National Committee for the Revision of Volumes I and II "College and University Business Administration." Close relationships were maintained at all times between this project and that committee. Not only were all working papers of that committee sent to the project office but the project director was invited to sit with that committee in all of their regular meetings. Special thanks in this regard are due to Clarence Scheps, Vice President and Comptroller, Tulane University, and George Van Dyke, Chairman of the Editorial Committee.

Within the University of Michigan, the Financial Analysis of Current Operations of Colleges and Universities Project was administered by the Institute of Public Administration. The help and encouragement and splendid cooperation given by the entire staff of the Institute and especially by Ferrel Heady, Director of the Institute, and Robert H. Pealy, Associate Director, deserve special recognition. The staff of the project is agreed that to have had the experience of working under the general direction of both of these men was not only a pleasure but a privilege.

Special mention also needs to be made of the services rendered to this project by Larry G. Owen, Budget Officer of the University of Kentucky, who served as research assistant on the project for the first year of its duration. This included all of the time of visitation of institutions in the field. Although Mr. Owen left the project at that time for his present position at the University of Kentucky, he continued to render invaluable service by reviewing tentative papers and drafts of the final document and rendering valuable suggestions thereon.

Finally, as in all endeavors of this sort, perhaps the greatest debt of all is owed to Mrs. Margaret Kilpela, who served as secretary for the project staff during the entire period of the study. Needless to say, without her services as travel coordinator, typist, proofreader, and general business manager, none of this study would have been possible. Special credit also should be given to Glenn C. Boerrigter of the United States Office of Education who carried the responsibility for this project within that office.

John E. Swanson
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PART I

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CHAPTER I

INTRODUCTION

Higher education in the United States is in the midst of a managerial revolution. A tremendous population growth in an era of accelerating social and technological change has created unprecedented demands upon the services of colleges and universities in the areas both of instruction and research. These demands have created unusual pressures upon the limited resources, both human and financial, available to the institutions of higher learning. As a result, the institutions have become increasingly concerned with finding ways in which these resources might be utilized to the highest degree of efficiency.

In a complex social organism such as an institution of higher learning, this cannot be done by guesswork. The day has long since passed when a college or university could be operated by a subjective "feeling" for its needs. Such subjective feelings become useful only when coupled with quantitative operational data reflecting the utilization of institutional resources in relation to institutional policies and goals.

> Also required are more facts, more rigorous analysis, and more general understanding of the needs and processes of higher education. It is astonishing how much of importance we as a nation do not know about so large, so expensive, and so critically important an enterprise as education. Moreover, the techniques of reporting basic data on a rapid and accurate basis which have been developed in such fields as agriculture, manufacturing, banking, horse racing, and baseball must now be applied to education in the interest of knowing how we are doing, where we are heading, and how we can do better.[1]
>
> There is a strong need for better tools for fact finding, planning, operations analysis, and reporting so that the president, trustees, and faculty will have a clearer frame of reference within which to make program

---

[1] Philip H. Coombs, "An Economist's Overview of Higher Education," in Financing Higher Education, 1960-70, ed. Dexter M. Keezer (New York: McGraw-Hill Book Company, Inc., 1959), p. 13.

> and management decisions and check progress against predetermined plans and goals, all in the interest of getting the best possible educational results from the resources available.[2]

The realization of these needs has brought institutions of higher learning, for the first time, into contact with the tools, theories, and practices of scientific management which have hitherto been confined to use by industry and government. This trend is illustrated by the emergence and increasing growth of offices of institutional research in colleges and universities, a growing reliance on quantitative data and policy analysis, and the use of computers in institutional administration.[3] Needless to say, this movement has not been universally welcomed in college and university circles. The traditional conservatism in the academic community with regard to the operation of the institution itself has brought about a vigorous resistance to the application of the techniques of managerial science to higher education. The bases of this resistance have been presented by Rourke and Brooks, and it is not intended to cover them again at this point.[4] It is important, however, to emphasize that the objective behind the application of the techniques of operations research to the management of institutions of higher learning is to so order the resources of the institutions that they may more effectively achieve the ends which they have set up for themselves. The tools of scientific management, of which institutional analysis as discussed in these pages is one, are just that and no more. They are tools to be used in what Thad L. Hungate has called the evaluation function of management:

> Evaluation consists of a critical review of practice and its purpose is to improve the quality of institutional services. To be effective, institutional policies for evaluation should provide for continuous built-in systematic evaluation procedures and records. The test will be the degree to which value judgments are strengthened. An evaluation system--itself subject to rigorous review--that affords ready evidence for assessment of objectives, policies, plans, resources, and program, all in relation to financial implications, is basic to the exercise of the directive function of management. Although the personnel involved in institutional management is continually changing, the system of evaluation must afford

---

[2] Ibid., p. 23.

[3] Francis E. Rourke and Glenn E. Brooks, "The 'Managerial Revolution' in Higher Education," Administrative Science Quarterly, Volume 9, No. 2 (September, 1964), pp. 154-181.

[4] Ibid.

> a medium for continuity of operations and for institutional change based on value judgments.
>
> Of all the functions of management, the evaluation function is perhaps the least systematized, partly because procedures are difficult to agree upon, partly because the evidence is often elusive, but primarily because its critical importance in institutional life often is not recognized.[5]
>
> . . . It is here proposed that evaluation be recognized as one of the major functions of management; that each institution develop a coordinated, comprehensive, continuous program, subject to continuous review, that the procedures be improved as needed, and that results be fully utilized in the development of policies and plans. . . .[6]

In the context of rapidly expanding demands upon institutional services to be met with limited resources, one of the most important and sensitive areas of the evaluative function of management is that of cost. The aforementioned increasing economic pressures upon higher education have served to impress upon colleges and universities, governmental agencies, and governing boards of both public and private institutions the importance of reliable financial analyses concerning current operations of institutions of higher learning. In order to be of maximum use to those persons responsible for or concerned with the operation of an institution of higher learning or a group of such institutions, these analyses must do more than accurately state the total expenditures or "costs" of the institution for a particular fiscal period. They must show for what purposes the money was spent at different institutions. They must point out what factors caused this cost to be what it was and the relationships that exist between these factors and the dollar expenditures. Such analyses should be capable of providing interinstitutional comparisons between similar institutions with similar missions and historical comparisons within the same institution. At the same time, they should be able to demonstrate to governing boards, coordinating groups, and responsible state agencies the effect the differences in mission, environment, program, and intricacies of financial support can have on the cost of operation so that such groups will not be led into faulty judgments or comparisons between institutions. In addition, in a period of rapid expansion of higher education, including both expansion of existing institutions and the creation of new institutions, such analyses should provide a means whereby the financial implications of present and proposed policies can be quickly measured. Further, they should provide an evaluation of the actual operation of the institution in relation to institutional policies, clearly showing deviations from those policies and the financial results of such deviations.

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[5] Thad L. Hungate, Management in Higher Education (New York: Bureau of Publications, Teachers College, Columbia University, 1964), p. 157.

[6] *Ibid*., p. 204.

To date, analyses providing such a breadth of information do not exist. Certain institutions do perform and make use of analyses internally, utilizing procedures which are peculiar to the institutions concerned. As a result, the information developed by such analyses is often not translatable between any two institutions and attempts to do so then lead to misinterpretations which may do far more harm than good. For groups of institutions a few ad hoc studies have pioneered in this area, but they were never intended to be continuing projects.[7] Continuing interinstitutional studies exist only in the case of a few state systems or cooperating groups of institutions and, again, information so developed is useful only within the particular system or group concerned.[8] For higher education at large, such analyses cannot exist in the absence of agreed-upon principles, classifications, and definitions of financial and related nonfinancial data and other "ground rules" that will insure a common base for financial data and a uniform approach to the analysis of such data.

The present study had as its task the development of an analytic procedure which could be applied to all institutions of higher learning and would develop the information necessary to answer the questions which were posed earlier concerning the current operations of any one institution. In addition, these answers would have to be in a common language that has the same meaning when applied to all institutions of higher learning.

This analytic procedure is designed to produce information for both interinstitutional and intrainstitutional use. It is true that the problems that called forth this study were primarily interinstitutional ones. The need for useful comparative financial information between institutions of higher learning and the corresponding need of a procedure which would account for the diversity that exists in higher education and thus prevent misleading comparisons were the primary concerns that led to such a project. It is also true that the types of reports needed for interinstitutional comparison and coordination often must be much more summary than those necessary for intrainstitutional management. This summariness is, however, one of reporting form only. Interinstitutional measures and indices, to be meaningful and useful, must be built upon the same detailed body of analytic data as that used for internal institutional management. An institution of higher learning is an exceedingly complex operation. Any meaningful analysis of such an operation must, unfortunately, also be complex. Although this complexity may be obscured by the process of summarization for external reporting purposes, it can be ignored only at the risk of undermining the accuracy and usefulness of the external reports.

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[7] The National Federation of College and University Business Officers Associations, A Study of Income and Expenditures in Sixty Colleges--Year 1953-1954; Fund for the Advancement of Education, California and Western Conference Cost and Statistical Study for the Year 1954-1955; National Federation of College and University Business Officers Associations, The Sixty College Study . . . A Second Look, 1957-1958 (1960); Thad L. Hungate, L. Richard Meeth, and William R. O'Connell, Jr., "The Quality and Cost of Liberal Arts College Programs: A Study of Twenty-five Colleges," Cooperative Long-Range Planning in Liberal Arts Colleges, ed. Earl J. McGrath (New York: Bureau of Publications, Teachers College, Columbia University, 1964).

[8] Arkansas, California, Colorado, Florida, Indiana, New Mexico, Oklahoma, Texas, Utah, Virginia.

The fact that the procedure for financial analysis of the current operations of institutions of higher learning which is presented herein is necessarily concerned with classifications and definitions of financial and related nonfinancial data should not be misconstrued to mean that this study is concerned with a procedure for the basic financial accounting for institutions of higher learning. The problems of basic institutional accounting and financial reporting are dealt with in the American Council on Education's volumes on College and University Business Administration[9] which are currently being revised by a committee of the National Association of College and University Business Officers. Institutions are referred to those volumes for questions concerning college and university financial accounting.

The procedures for financial analysis discussed and recommended herein are supplementary to the basic accounting activities of the institution. The organizational patterns of institutions of higher learning in the United States are exceedingly diverse. Indeed, it is doubtful if any two institutions have exactly the same organization. The basic financial accounting in an institution of higher learning ordinarily follows the organizational pattern of that institution for reasons of budgetary and management control. Although the accounting classifications recommended in College and University Business Administration are functional ones, the groupings within the functions are on the basis of organizational units rather than the functions being performed within those units. Therefore, for purposes of interinstitutional comparison, it is essential that supplementary classifications and analyses be used. The diversity of institutional organization demands that some approach be taken which cuts across organizational lines to isolate activities and functions being performed in each institution that are similar to those being performed in another institution, regardless of the organizational unit carrying on those activities. There is also required a rigidity in classification and treatment of expenditures which is not absolutely necessary or even often desirable in the general accounting system. When interinstitutional comparison is the ultimate use of the data, no local ground rules can apply. One single total system and set of definitions and classifications must be applied to all if it is desired to have valid comparability of data among all.

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[9] The National Committee on the Preparation of a Manual on College and University Business Administration, College and University Business Administration, Volumes I and II (Washington, D.C.: American Council on Education, 1955).

CHAPTER II

BASIC CONCEPTS

In order to accomplish the task outlined in the Introduction, it is first necessary to formulate a concept of an institution of higher learning into which all such institutions, large or small, complex or simple, will fit. Such a concept will enable the person concerned to look at all institutions in the same manner. It serves as a pair of glasses, so to speak, through which the viewer can screen out differences in organizational patterns and can begin to see what functions the institution is actually performing, what institutional resources are being applied to those functions and in what manner, and which of those functions are comparable to those being performed at another institution and which are not. It is only through the application of such a concept that the results of institutional analysis begin to become meaningful and useful, both internally and externally.

An Analytic Concept of an Institution of Higher Learning

An institution of higher learning is conceived of in this analysis as a service institution. It is created by society or some segment of society to perform certain services, with either all or some of these services being common to all such institutions. Different institutions and their creators may have widely differing goals or purposes in mind which they hope will be achieved by performance of these services. These differing goals may affect the decision as to which of the services are to be performed and the manner in which they are to be carried out, but they do not affect the classification of the services themselves. All of the educational activities of an institution of higher learning are directed towards the carrying out of one or more of these services.

In this analytic framework, there are conceived to be five services or service functions being carried on by institutions of higher learning. The first three are direct educational functions and are ends in themselves:

1. Instruction is defined as the methodical imparting of knowledge through an active process involving

teachers and students, resulting when successful in formal credit toward an academic degree.

2. Research is defined as critical and exhaustive investigation or experimentation having for its aim discovery of new facts and their correct interpretation, revision of accepted conclusions, theories, or laws in the light of newly-discovered facts, or the practical application of such new or revised conclusions, theories, or laws, including the training of students through such investigation or experimentation.

3. Services to the Public are defined as comprising those educational activities of the institution which are neither Instruction nor Research as defined and which primarily serve a clientele other than the institution's own staff and degree-credit students.

The fourth service function is a direct function serving individuals who are engaged either in carrying on the other functions or being served by them:

4. Services to the Academic Community are defined as those activities, facilities, organizations, and enterprises within institutions of higher learning which provide services which are not primarily educational in themselves but which have as their purpose the direct fulfillment of other personal individual needs of members of the academic community. Such services are provided directly to individual students and staff and occasionally or incidentally to members of the general public. These services are ancillary or expeditious rather than essential to the primary educational functions.

The fifth service function is an indirect supporting function, serving the preceding four:

5. General Support includes those activities supporting, rendering services to, or exercising responsibility for two or more of the other four functions.

Fuller definitions of each of these functions and of the subclassifications included within them are presented in Chapter V on the analytic framework.[1] Detailed illustrations and further rationale are developed in subsequent chapters on each of the five functions.

Like all service enterprises, institutions of higher learning receive their support from the purchase of the services being performed, either in the form of the direct purchase of the service by the person receiving or utilizing it or the purchase of the service by someone else for the person who will receive it or utilize it. In an institution of higher learning, this support generally falls into three classifications:

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[1] *Infra*, pp. 50-58.

1. Purchase of the service by persons or organizations receiving the service directly (degree-credit students, sponsors of research contracts, non-degree students, persons and agencies purchasing consulting services, dormitory renters, food service customers, bookstore customers).

2. Specific subsidy or purchase of different types of service by persons other than those utilizing that service (governmental appropriations to support research in general, endowment of specific professorships or chairs, governmental appropriations for agricultural extension, endowments or appropriations for scholarships and fellowships).

3. Subsidy of the entire service enterprise by society as a whole or some segment of society, herein classified as General Institutional Income (state appropriations, unrestricted gifts, unrestricted endowments).

Exhibit 1 presents a schematic representation of this concept of an institution of higher learning, demonstrating how both operating income and operating expense can be viewed in the same context of service functions. Two things are especially to be noted in this concept. First, it should be noted that while in each case the direct service functions do serve the clientele purchasing and utilizing that service, once established, they may also serve other elements of the institutional clientele which have not directly supported that function. Second, the function of General Support, serving as it does the four direct functions, does not have any direct purchasers of its services. Instead, as is the case with all other service enterprises, the support for this "overhead" function is included either in the fees charged to specific users or in the general subsidy of the enterprise as a whole.

Some ten years ago, the California and Western Conference Cost and Statistical Study applied the concept of an institution of higher learning as basically an environment for learning.[2] Institutional analysis would be concerned with the description and measurement of the factors required for the creation of the environment and the comparison of the quantitative factors involved in the creation of two or more environments.

This concept of the environment for learning fits in well with the concept of an institution of higher learning as a service

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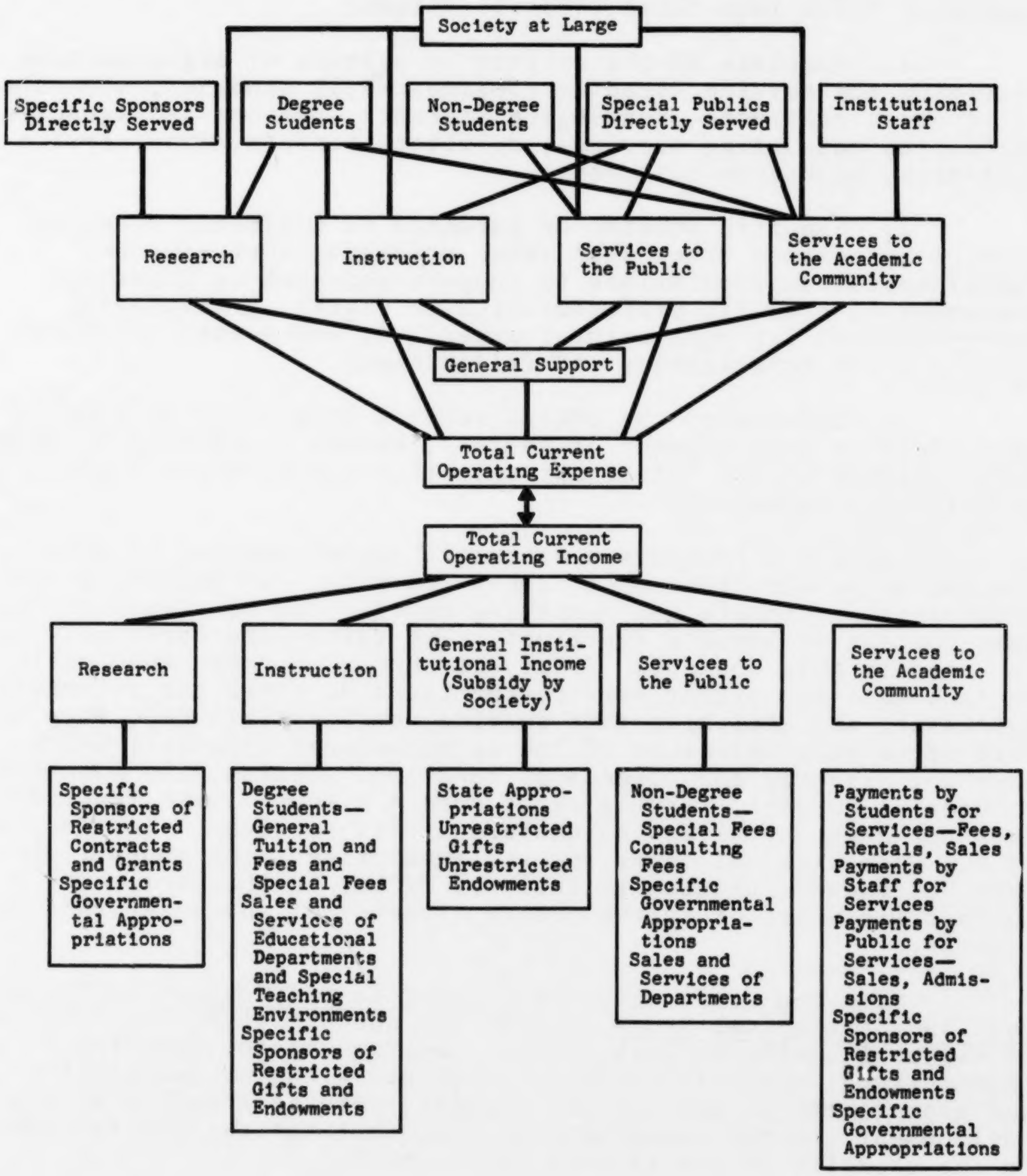
[2] *Op. cit.*, pp. 1-4.

EXHIBIT 1

THE SERVICE CONCEPT OF AN INSTITUTION OF HIGHER LEARNING


Society at Large
Specific Sponsors Directly Served
Degree Students
Non-Degree Students
Special Publics Directly Served
Institutional Staff
Research
Instruction
Services to the Public
Services to the Academic Community
General Support
Total Current Operating Expense
Total Current Operating Income
Research
Instruction
General Institutional Income (Subsidy by Society)
Services to the Public
Services to the Academic Community
Specific Sponsors of Restricted Contracts and Grants
Specific Governmental Appropriations
Degree Students—General Tuition and Fees and Special Fees
Sales and Services of Educational Departments and Special Teaching Environments
Specific Sponsors of Restricted Gifts and Endowments
State Appropriations
Unrestricted Gifts
Unrestricted Endowments
Non-Degree Students—Special Fees
Consulting Fees
Specific Governmental Appropriations
Sales and Services of Departments
Payments by Students for Services—Fees, Rentals, Sales
Payments by Staff for Services
Payments by Public for Services—Sales, Admissions
Specific Sponsors of Restricted Gifts and Endowments
Specific Governmental Appropriations

enterprise. Indeed, the environmental approach to analysis is common to almost all service enterprises where the "products" produced by the service activities are not susceptible of quantitative measures.

Thus one can conceive of an institution of higher learning as an enterprise created to provide certain types of services to society at large and to specific segments of that society. These services are classified as Instruction, Research, Services to the Public, Services to the Academic Community, and General Support. In order to provide such services, the institution creates an environment in which it believes these specific types of activities will best thrive. This is the Environment for Learning. It is made up of many components: highly-trained professional personnel; classrooms and laboratories; books; supplies; residence halls; food service facilities; equipment; and many other items. Every portion of this environment, however, is created with a specific purpose in mind. That purpose is the rendering of one or more of the services which the institution itself has been created to perform. Thus, within the larger Environment for Learning we can identify subenvironments which have as their primary purpose the creation of the components necessary to best make available the service functions which the institution is performing. For analysis purposes, then, there are identified within the Environment for Learning an Environment for Research, an Environment for Instruction, an Environment for Services to the Public, an Environment for Services to the Academic Community, and an Environment for General Support.

To return for a moment to the _California and Western Conference Cost and Statistical Study_, there was recognized in the report of that project a need "both for internal analyses and for interinstitutional comparisons . . . [for] a more complete description of all of the factors--as to kind and quantity--which go into the creation of a given educational environment . . ."[3] These factors are described as the "production functions" of the environment or the "input factors" of the environment. "Only when all of these input factors are considered is it possible to describe fully what is needed to create a given environment or the production function for that environment. The really vital aspect of the production-function concept is that it takes into account the quantities of factors needed for various quantities of product--in this case, for various numbers of students being exposed to the environment (which is, in a sense, various quantities of the environment)."[4]

Analysis, then, involves the identification of these production functions and the assessment of their cost, both now and in the future. This cannot easily be done at the level of the total environment or even of the subenvironments. To develop the production-function data, it is necessary to begin with the basic operating units of the Environment for Learning. For purposes of this analytic procedure, these units are called the environmental units. The environmental unit is defined as the fundamental operating entity of the environment with which the user comes into direct contact and which renders directly to him a service which is substantially different from that rendered by any other unit of the environment. When the services performed by the fundamental operating unit are of a secondary nature, designed either to assist the environmental units involved in the basic primary functions or to assist the individuals being served by those environmental units, such unit is called a support unit. Environmental units and support units are the two varieties of what are henceforth generically called the analytic units.

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[3] _Ibid._, p. 94.

[4] _Ibid._

These analytic units constitute the "building blocks" for all analyses of institutional operations. By adding together the production functions of different analytic units it is possible to ascertain the production functions of various subenvironments and, finally, of the entire environment. Likewise, by adding together the users of each of the analytic units it is possible to determine the total users of each subenvironment and of the total environment.

The next step is to identify the analytic units for each of the subenvironments of the total Environment for Learning and the users or utilization factors of each environmental unit. Exhibit 2 does this for this analytic procedure. Two things should be noted about these identifications of environmental units and utilization factors:

1. Any given environmental unit or support unit may have more than one type of user or utilization factor, each of which may be valid for a different analytic purpose. For example, a demonstration school in an institution of higher learning is used to give professional training and experience to degree-credit students in the field of education. For purposes of analyzing the Instruction function, these students constitute the utilization factor. At the same time, the demonstration school is being used by subcollegiate students for their particular educational purposes. When viewed in this light, the subcollegiate students enrolled in the demonstration school become the utilization factor. Both types of analyses are of use and importance in the management of the institution.

2. The identification of analytic units given in Exhibit 2 has been made with an analysis of the educational functions of the institution of higher learning primarily in mind. Thus, to return to our previous example, the demonstration school is listed as a support unit. This is most certainly a proper identification for the analysis of instruction. However, if a

EXHIBIT 2

FUNCTIONAL IDENTIFICATION OF ANALYTIC UNITS AND UTILIZATION FACTORS

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
1. Instruction		
a. Organized Teaching of Degree-Credit Courses	E-Courses, Course Divisions, Sections, and Students	Student Registrations
b. Academic Counseling	E-Groups of Students	Students Counseled
c. Provision of Professional Training Facilities	S-Professional Training Facility	(1) Student Registrations to be Trained in the Facility (2) Users of the Marketable By-Product of the Facility
d. Admissions	S-The organization unit or units carrying on the admissions process or portions thereof devoted to that activity	(1) Applicants for admission (2) Admitted students (3) Student courses
e. Registration and Allied Activities	S-The organization units carrying on the registration process and allied activities or the portions of them devoted to these activities	Student Courses
2. Research		
a. Research Projects		

EXHIBIT 2--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
Involving Students	E-Project	(1) Direct Academic Staff (2) Degree Students (3) Number of Teachers
Involving Teachers But Not Students	E-Project	(1) Direct Academic Staff (2) Number of Teachers
Involving Neither Teachers Nor Students	E-Project	Direct Academic Staff
b. Faculty Development Time	E-Academic Staff Assignments	Direct Academic Staff
c. Provision of Special Research Facilities	S-Special Research Facility	(1) Research Projects Involved (2) Direct Academic Staff Involved
3. Services to the Public		
a. Organized Teaching of Non-Credit Courses	E-Courses and Sections, Short Courses, Workshops, Conferences	Student Registrations
b. Dissemination of Knowledge through Other Than Organized Teaching	E-The individual activities identified with performing one common service for the ultimate user	(1) The identifiable user of the service performed. If not identifiable, then the final activity designed to carry the service to the user. (2) Direct Academic Staff

EXHIBIT 2--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
c. Regulation and Inspection	E-Organizational unit carrying on the process or the portion of it devoted to the activity	Identifiable activities carried on
4. Services to the Academic Community		
a. Student Development	S-Support Categories	(1) Individuals served (2) Student Courses
b. Financial Aid		
Operation of Offices and Services	S-Organizational units carrying on financial aid activities or portions of units devoted to the activity	(1) Number of students processed (2) Student Courses
Payments to Students	S-The scholarship, tuition remission, or prize	(1) Number of "free grants" (2) Student Courses
c. Care, Subsistence, and Recreation		
Housing	S-Housing Units	(1) Student and Staff Rentals (2) Student Courses
Food Service	S-Food Service Units	(1) Meals Served (2) Student Courses
Stores and Shops	S-Store Units	(1) Individual Sales (2) Student Courses
Student Center	S-Center Units	(1) Individuals Served (2) Student Courses
Health Service	S-Service Units	(1) Individuals Served (2) Student Courses

EXHIBIT 2--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
Parking	S-Lots or structures	(1) Spaces (2) Users
Airport	S-Service Units	Individuals Served
Intercollegiate Athletics	S-Programs	(1) Student Participants (2) Admissions (3) Student Courses
Student Organizations and Activities	S-Individual Organizations and Activities	(1) Individuals Served (2) Student Courses
Cultural Activities	S-Individual Programs and Activities	(1) Admissions (or Attendance) (2) Student Courses
5. General Support		
a. Learning Resources	S-Support Categories	Four Direct Functions, as measured by: (1) Total FTE Academic Staff (2) Total Compensation for FTE Academic Staff (3) Total Expenses for Instruction, Research, Services to the Public, and Services to the Academic Community
b. Plant Operation and Maintenance	S-Support Categories	
c. Administration	S-Support Categories	
d. Promotion and Development	S-Support Categories	
e. General Institutional Expense	S-Support Categories	

detailed analysis of the demonstration school itself were desired, most certainly the courses and sections being offered to the subcollegiate students within the demonstration school would become environmental units for such an analysis. For certain specialized types of activities, persons most familiar with those activities would be best qualified to identify these units.

Exhibit 3 presents a visual representation of this concept of an institution of higher learning--an environment for learning. It identifies the major subenvironments and subclassifications of those subenvironments and, within each, the environmental or support units--represented by circles--which provide the basic unit of analysis. For each of these analytic units, the production functions or input factors will be identified, measured, and the financial cost thereof determined.

It is believed that this concept of an institution of higher learning will not only permit but will possibly encourage the types of financial analysis that will provide answers to the pressing problems of higher education that were cited previously. It is a concept into which all institutions, large or small, complex or simple, can be fitted. Every institution, regardless of its size or complexity, performs certain service functions and, on the basis of these functions, its activities can be fitted into the classifications included within this analytic concept.

The purposes for which expenses were incurred at any institution are shown on the basis of the environmental unit performing the service. Such a functional approach also provides interinstitutional comparisons for institutions whose similarity of functions can be ascertained from the analysis and at the same time differentiates institutions whose functions are dissimilar. The detailed analysis of each environmental unit, which will be discussed more fully in the later treatment of the analysis of each of the service functions, is keyed to the factors influencing the cost and to the relationships that exist between those factors and the dollar expenditures.

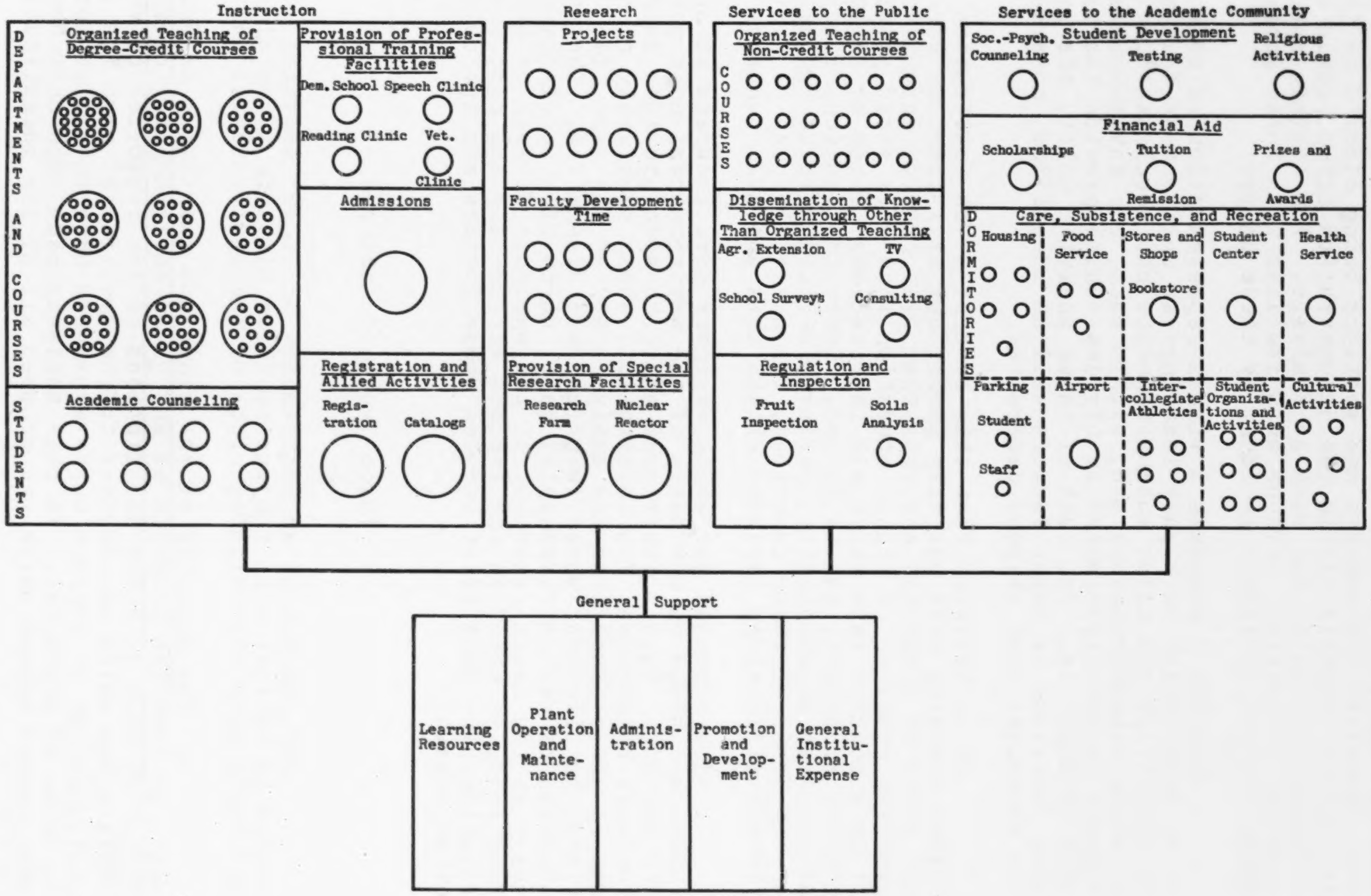
Three Types of Analyses

The concept of an institution of higher learning represented by Exhibit 3 is subject to three distinct types of analyses, all based upon the building block of the environmental unit.

1. The analysis of the kinds and quantities of factors which go into the creation of any given environmental or support unit. By this is meant descriptions of the resources of the institution which are devoted to the creation of each individual environmental or support unit--expressed both in dollar terms and in terms of personnel. In this analysis each such unit becomes a cost center around which are grouped all of the identifiable

EXHIBIT 3

THE ENVIRONMENT FOR LEARNING


Instruction
DEPARTMENTS AND COURSES
Organized Teaching of Degree-Credit Courses
STUDENTS
Academic Counseling
Provision of Professional Training Facilities
Dem. School
Speech Clinic
Reading Clinic
Vet. Clinic
Admissions
Registration and Allied Activities
Registration
Catalogs
Research
Projects
Faculty Development Time
Provision of Special Research Facilities
Research Farm
Nuclear Reactor
Services to the Public
Organized Teaching of Non-Credit Courses
COURSES
Dissemination of Knowledge through Other Than Organized Teaching
Agr. Extension
TV
School Surveys
Consulting
Regulation and Inspection
Fruit Inspection
Soils Analysis
Services to the Academic Community
Student Development
Soc.-Psych. Counseling
Testing
Religious Activities
Financial Aid
Scholarships
Tuition Remission
Prizes and Awards
Care, Subsistence, and Recreation
DORMITORIES
Housing
Food Service
Stores and Shops
Bookstore
Student Center
Health Service
Parking
Student
Staff
Airport
Intercollegiate Athletics
Student Organizations and Activities
Cultural Activities
General Support
Learning Resources
Plant Operation and Maintenance
Administration
Promotion and Development
General Institutional Expense

direct costs involved in the creation of that particular environmental unit. These costs can then be compared with the costs of other units of the same environment or of similar units in different environments or institutions. In this analytic framework each environmental unit will be analyzed in the following manner:

a. Direct academic compensation (full-time-equivalent persons and total dollars)
b. Immediate support (full-time-equivalent persons and total dollars)
    1) Administrative academic compensation
    2) Nonacademic compensation
    3) Supplies and expense

Each support unit will carry the following information:

a. Personal compensation (full-time-equivalent persons and total dollars)
b. Supplies and expense

2. The analysis of the utilization of each environmental or support unit. This analysis relates the resources devoted to the environment to the utilization factor or users of the environment. Thus, it would give unit costs and such relationships as student registrations to the teacher. In addition, it should give the relationship of the actual utilization of the environment to the optimum utilization[5] of the environment under the institution's policies.

3. An analysis of the utilization of the entire environment by any individual user or group of users. The concept behind this approach to the analysis of operations of an institution of higher learning is a little different from that behind the first two. A college or university operates through environmental units created to serve specific purposes. It is within these environmental units and the organizational entities which hold responsibility for them that policies are effected and the activities of the institution are carried on. It should be emphasized that an intensive analysis of each of these, both in terms of the resources devoted to them and how those resources are utilized, is of utmost importance. At the same time, however, students and other users of the environment for learning which is a college or university are "passing through" the environment as a whole. No one user--student or otherwise--utilizes the entire environment. Indeed, it may be that no two users--or at least very few--utilize exactly the same environmental units. However, groups of users pursuing the same goals, such as students within the same field of study, tend to cluster around the same environmental units and follow in highly similar pathways.

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[5] *Infra*, p. 27.

Exhibit 4 illustrates the third form of analysis which is concerned with the utilization of the entire environment by any one user or a group of users. In this case, Exhibit 4 illustrates the utilization by one student of the environment shown in Exhibit 3; this is a hypothetical graduate student in the field of speech. The circles representing environmental units which have been shaded represent the units of the total environment which were utilized by Student "A" during the particular period under analysis. It will be noted that Student "A" took six courses in speech and two in English. In addition, he worked with school children in the speech clinic one afternoon each week, he assisted a professor in a research project, he was admitted, and he was subject to the registration and grade-recording activities of the institution. Leaving the environments for Instruction and for Research, he also participated in several activities within the Environment for Services to the Academic Community. He was subjected to some testing procedures; his out-of-state tuition was waived; and he lived in a dormitory, ate in a food service facility, purchased supplies at the bookstore, was served by the student center and the health service, had a student parking permit, and attended certain athletic events and cultural activities. Since the identification of each one of these particular environmental units as a cost center has made it possible to determine a unit cost per student or per student registration for each of these environments, it is possible to assign to Student "A" the actual cost of his utilization of each one of these environments and to reflect a series of costs for that particular student which are illustrated by the shaded circles above the environmental representations.

The same type of analysis can be applied to show the sources of support for any particular environmental user or group of environmental users. Exhibit 5 presents the same environment for learning as shown in Exhibits 3 and 4 from the point of view of sources of support. Within each of the subenvironments and even environmental units, where possible, are shown the purchasers of the services offered by each particular environment and, under General Institutional Income, the sources of societal subsidy for the environment as a whole. In the environmental units utilized under Organized Teaching of Degree-Credit Courses, Admissions, and the various environmental units under Care, Subsistence, and Recreation, Student "A" himself was the purchaser, and the amount which he paid for the service received can be ascertained. This total represents the portion of the direct educational cost of Student "A" paid by that student during that period of time. In the case of Research Project Y and the Speech Clinic, other users purchased another service produced by those particular environmental units and the amount of their support per degree-credit student utilizing that particular unit represents the portion of the direct educational cost of Student "A" borne by other users of the environment. The difference between the total of these two general sources of support and the total direct educational cost represents the total subsidy by society of the cost of

EXHIBIT 4

THE UTILIZATION OF THE ENVIRONMENT FOR LEARNING BY STUDENT "A"

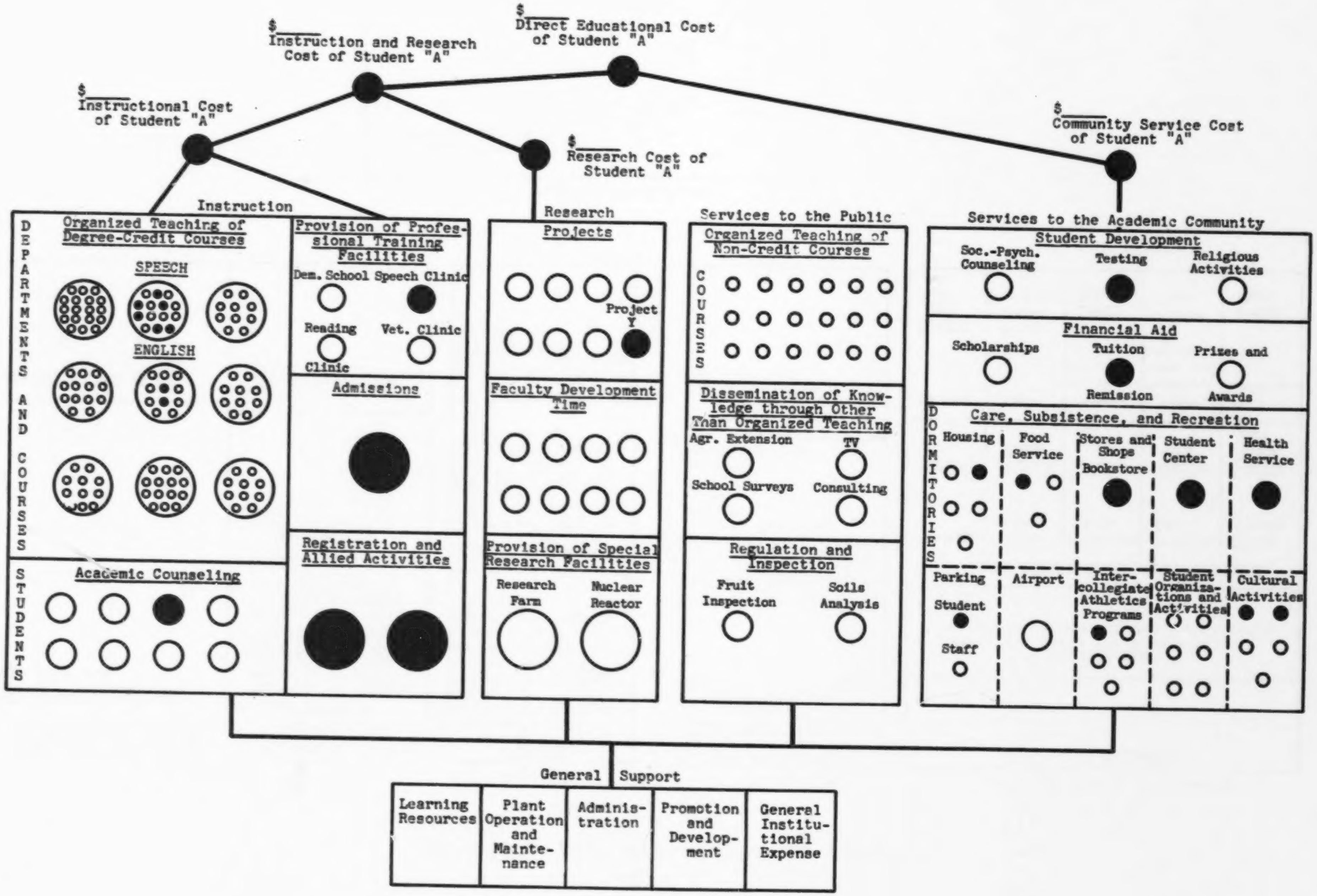
$____ Direct Educational Cost of Student "A"
$____ Instruction and Research Cost of Student "A"
$____ Instructional Cost of Student "A"
$____ Research Cost of Student "A"
$____ Community Service Cost of Student "A"
Instruction
Organized Teaching of Degree-Credit Courses
DEPARTMENTS AND COURSES
SPEECH
ENGLISH
Provision of Professional Training Facilities
Dem. School
Speech Clinic
Reading Clinic
Vet. Clinic
Admissions
Registration and Allied Activities
Academic Counseling
STUDENTS
Research
Projects
Project Y
Faculty Development Time
Provision of Special Research Facilities
Research Farm
Nuclear Reactor
Services to the Public
Organized Teaching of Non-Credit Courses
COURSES
Dissemination of Knowledge through Other Than Organized Teaching
Agr. Extension
TV
School Surveys
Consulting
Regulation and Inspection
Fruit Inspection
Soils Analysis
Services to the Academic Community
Student Development
Soc.-Psych. Counseling
Testing
Religious Activities
Financial Aid
Scholarships
Tuition Remission
Prizes and Awards
Care, Subsistence, and Recreation
DORMITORIES
Housing
Food Service
Stores and Shops
Bookstore
Student Center
Health Service
Parking
Student
Staff
Airport
Inter-collegiate Athletics Programs
Student Organizations and Activities
Cultural Activities
General Support
Learning Resources
Plant Operation and Maintenance
Administration
Promotion and Development
General Institutional Expense

EXHIBIT 5

THE FINANCIAL SUPPORT OF THE ENVIRONMENT FOR LEARNING

Instruction

Organized Teaching of Degree-Credit Courses

Degree-Student Tuitions
Restricted Endowment for
Chair in History

Academic Counseling

Provision of Professional Training Facilities
School District
Payment for Demonstration School
Fees Paid by Users of Speech Clinic
Fees Paid by Users of Reading Clinic
Fees Paid by Users of Veterinary Clinic

Admissions
Student Admission Fees

Registration and Allied Activities

Research

Projects
Sponsored Research
Contracts for:

Project A	Project W
Project B	Project X
Project C	Project Y
Project D	Project Z

Appropriations for
Agricultural
Experiment Station
Federal
State

Faculty Development Time
Restricted Endowment
for Research Chair
in Physics
Appropriations for
Agricultural
Experiment Station
Federal
State

Provision of Special Research Facilities
Sales of Farm
Products

Services to the Public

Organized Teaching of Non-Credit Courses
Course Fees of
Non-Credit Students
Workshop Registration
Fees

Dissemination of Knowledge through Other Than Organized Teaching
Appropriations for Agricultural Extension
Federal
State
County
Survey Fees
Consulting Fees

Regulation and Inspection
Inspection Fees
Analysis Fees

Services to the Academic Community

Student Development

Financial Aid
Restricted Gifts for Scholarship
Restricted Endowment for Scholarships

Care, Subsistence, and Recreation

Housing	Food Service	Stores and Shops	Student Center	Health Service
Rentals	Sales of Meats	Sales	Student Fees	Student Health Fees
Parking	Airport	Inter-collegiate Athletics	Student Organizations and Activities	Cultural Activities
Student Fees Staff Fees	Hangar Rental Use Fees	Ticket Sales	Student Fees	Ticket Sales

General Institutional Income

State Appropriation
Federal Appropriation

Student "A" which, in this case, was paid from a state appropriation and a federal appropriation.

While this particular type of analysis of utilization of the environment could be used for determining the cost for an individual user, such use may have little practical value. However, it is believed that it has potentialities for the more practical use of determining average costs for groups of users such as students within the same field of study. The analytic procedure prescribed herein requires the identification, for each environmental unit, of the students utilizing that unit by progress category (student level), field of study, and degree sought. It thus becomes possible to analyze the operations of the institution on the basis of degree program or student field of study.

Such an approach is of considerable importance for two reasons. The first of these is related to the problem of interinstitutional comparison. The major factor which makes institutions different from one another and thereby reflect different cost patterns is the difference in degree programs or curricula which the institutions may offer. An analysis based upon curricular offerings breaks the institutional instructional operations down into pieces which may be susceptible of meaningful comparison and, at the same time, very clearly demonstrates wherein the institutions as an entirety are diverse. This is not to say that size and control and other factors may not be important in differentiation between institutions. It is to say that they are secondary to degree programs. An analysis of curricula, when accompanied by numbers of students in each curriculum at each level, demonstrates more clearly differences in student mixes between institutions and in the same institution from year to year than any other type of analysis.

The second reason for the emphasis on degree program analysis is the belief that the curricula of the institution are the basic determinants of instructional costs and the media through which meaningful decisions concerning policies which affect these costs can and ought to be made. It is true that teaching salary costs are incurred at the level of the individual course or class. But the course exists presumably because of curricular requirements and students enroll in that course because of curricular requirements. A change in these requirements can change the entire picture of departmental or course costs. Yet this change may be completely outside the control of the department concerned. Indeed, it may not even be consulted or informed of the change.

This is not to say that this presentation proposes to abandon departmental and course analysis. But they become meaningful, as in this analysis, when used in conjunction with a cost analysis by student field of study. Divorced from this, they may be highly misleading. For example, there is a world of difference between the cost per student registration in the Department of English (which may be quite low) and the cost per student registration of the Bachelor of Arts English Major curriculum (which may well be quite high in the same institution). Since students progress through the institution in degree programs and the institution itself expands by adding new programs, an understanding of the costs involved is essential for any meaningful institutional cost projections.

The Quantification of Policy

Financial analysis is, first and foremost, a management tool. Management is concerned with the formulation, execution, and evaluation of policy. Financial analysis becomes useful, therefore, to the extent to which it can be closely related to policy decisions. Thus, it becomes necessary in the analysis of an institution of higher learning to identify the various policy decisions which result in the environment for learning which is peculiar to that institution. These would include policies concerning the functions which the institution is to perform; the allocation of university resources among these functions; the degree programs which are to be offered; the courses which are necessary to fill the requirements of these degree programs; the admission and numbers of students in these various programs at various levels; the size of sections desired; the relative amounts and the time significance of teaching, research, administration, and other assignments; the salaries and related benefits and other forms of recognition to be given to the staff; and the kinds and quantities of supporting services to be made available to both the students and the faculty.

In visiting the 110 institutions of higher learning in the United States which served as a sample for this study, the staff was struck by weaknesses in the areas of policy formulation, execution, and evaluation which were common to almost all of the institutions. The first of these was the lack of any codification or positive expression of the policies themselves. The second was the absence of any measurement or evaluation of the effectiveness of the policies or, indeed, of any measurement of the relevance of the policies to the actual operating situation of the institution. One of the major reasons for these weaknesses is the absence of any quantitative expression of the policy decision itself. Where the policy cannot be measured in quantitative terms, it becomes extremely difficult to relate operational data to it. Too often policy expressed in vague generalities becomes, in operation, no policy at all.

The analytic procedure presented herein attempts, wherever possible, to present measures through which policy decisions can be quantified. The allocation of university resources among the basic functions is measured in terms of dollars and in terms of full-time-equivalent academic staff devoted to each of those functions. The relationship of research to instruction is quantified through the measurement of the numbers of students and teaching faculty involved in research activities. In the case of section size policy and the assignment value of teaching, research, and other staff responsibilities, the institution is required, in this procedure, to state an optimum size and assignment value for each environmental unit. By "optimum" is meant the ideal which the institution considers most favorable to the achievement of the goals of the institution to be attained through that unit. Actual section size and assignment values can then be measured against these optima. These optima represent a quantification of the institutional policy for each of the units. Costs under the optimum situation and the actual situation can be compared. The quantification of policy decisions in these ways makes possible the construction of a model of the institution as a whole or any portion of the institution through which the financial results of policy decisions can be projected and the alternative possibilities can be weighed.

The Question of Quality

It may have been noted that the analytic concept presented here makes no mention of the quality of the product produced by an institution of higher learning. Indeed, it is concerned with the description and measurement of the environment which produces certain services or "products" rather than any attempt to define and measure the products themselves.

The services performed by an institution of higher learning are its "products." The measurement of such products involves a qualitative judgment on the value or success of the services performed. Unfortunately, in the field of higher education, the development of measures of such success has not proceeded to a point even approaching the possibility of universal or widespread agreement. It, therefore, would be extremely difficult and even dangerous to try to relate a financial analysis to the "products" of an institution of higher learning when these products cannot be clearly defined, let alone given any sort of qualitative measure. To attempt to do so would leave this study, as it has left others, open to the charge that such quantitative financial analyses are dangerous and useless because they imply that quality can be measured in such terms.

A measurement of quality in higher education at the present time is a highly subjective matter. While an attempt to develop such measures certainly provides a legitimate and worthwhile field of research in higher education, it is not within the province of this project. It is proposed that the definition of quality in an institution be left up to those charged with that judgment--the deans, the president, and other responsible officials. These officers make this judgment out of their knowledge and experience in the field of higher education. Such a judgment of quality, however, tends to be defined in terms of a particular institution or program--either the officials' own institution or program, another institution or program with which they are familiar, or an ideal institution or program which they have set up as a goal. Further, the president and others responsible can begin to reproduce the type of institution or program which they want only in terms of certain physical relationships which have to be measured and described in order to be produced at all. Quantitative analysis can provide data, measures, and units indicating how, where, who, and what the resources of the institution are providing and at what cost. The task of financial analysis, then, is to describe the physical relationships and costs which go to make up the officials' present institution, other institutions which they may wish to emulate, or their ideal institutions in terms that are clearly understandable and capable of being converted into some sort of action program, including the cost of maintaining this action program in the future.

Implications for Data and Data Collection

This analytic concept also evidences the necessity for the collection and handling of a tremendous amount of analytic data of a comprehensive nature. "Analytic data of a comprehensive nature" is herein defined as organized, concise, continuing, descriptive information concerning an institution of higher learning. It is basic, therefore, that in producing such analytic data each institution should not undertake the task as a special, one-time project but that it should, instead, have competent professional personnel permanently and continuously assigned to this effort as a continuing responsibility under a permanent organization which should be located at a central and high enough level within the university organization to be effectively used as a major tool of top management. Personnel assigned to such a task should be competent, have some accounting expertise, an institutional research orientation, and be of high management staff calibre.

The data collection process itself is viewed not as sporadic activity but as an integrated, coordinated process bringing together dollar and operational data, both projected and actual, which will give a meaningful and comprehensive description of the operation of the institution. Needless to say, such a process should include the use of the data processing system and any and all devices and techniques that would economically expedite data collection, processing, and reporting.

This approach to data collection carries with it implications for the types of data which should be sought. First and foremost, it should be a type of data which can be universally used, both for comparability between institutions and for encouraging approved standards of administration within an institution. This implies the development of measures and data which are universal among all institutions of higher learning. Since one of the great problems underlying this area is the lack of any universal means of communication between institutions of higher learning, analytic efforts should be directed toward the invention of a universal, analytic language which will have meaning at all levels. This implies identical classifications, ground rules, definitions, data collection techniques, and measuring devices for such things as student loads, teaching loads, and the like, with adequate validity checks and controls being essential.

Such detailed source data, however, can be useful only if they are capable of being reduced to a manageable and understandable presentation format. The ultimate goal is maximum usefulness with a minimum volume of report data. This does not mean that such analyses may not be backed up by a great complex of measurements. For presentation purposes, however, the data should be distilled to least volume and the least amount of detail without undue distortion of the elements present.

The description and definition of these data, the development of procedures for collecting them, and an examination of their meaning and management uses comprise the major portion of the ensuing sections of this report. A reliable, meaningful data system is the key to useful analysis. The basic purpose of any analysis, and especially financial analysis, is to take an extremely complicated and complex operation such as that of an institution of higher learning, identify the important points of policy decision in that operation, and provide data concerning those points so that those charged with policy-making can see what the financial implications of various policies have been at the institution in question, at other institutions, and what those implications may be expected to be in the future. It does not present solutions. It presents a way in which the results of various alternatives can be projected and discussed so that reasonable men may ask reasonable questions and expect reasonable answers.

Chapter III outlines the procedure that was followed in the conduct of this study. The next four chapters (IV through VII) of this document present the general framework for analysis. Chapters VIII through XII develop in further detail the specific application of that analytic framework to each of the five defined functions of an institution of higher learning. Chapter XIII gives some illustration of statement and report format and of management uses of the data produced through these procedures.

CHAPTER III

PROCEDURE

The Financial Analysis of Current Operations of Colleges and Universities Project was originally conceived by the Association of Governing Boards of State Universities and Allied Institutions. The project proposal was developed cooperatively by representatives of that association, together with representatives of the Association of State Universities and Land-Grant Colleges and the State Universities Association. An Advisory Committee made up of representatives of these three associations continued to play a significant role in the project.

The study is concerned with the development of financial and related information by both publicly- and privately-supported colleges and universities. Recognizing the difficulty in comparing the operations of institutions of different size, mission, and other characteristics through the use of presently available data, the study is designed to develop national standards of record-keeping and analysis which will permit comparisons to be made on valid bases and delineate those areas in which valid comparisons may not be made.

During the six-month period from January 1, 1963 until June 30, 1963, the Institute of Public Administration was primarily concerned with the staffing of the project. On July 1, 1963, the staffing was completed and the project formally got under way.

During the first few months, the project staff was concerned with contacting national associations and organizations in the field of higher education and securing their cooperation in the study. These include the American Council on Education, the National Association of College and University Business Officers, the American Association of Junior Colleges, the National Association of State Budget Officers, and the Council of State Governments. In addition, close contacts were made and have been maintained with the National Committee for the Revision of Volumes I and II "College and University Business Administration" of the American Council on Education which, as its title indicates, is concerned with the revision of what has been the "bible" for college and university business officers. Close contacts have been maintained with this committee, all materials produced by each group have been made available to the other group, and representatives from this study have sat in on all meetings of that committee. During this same period, the staff produced a brochure describing the study and its general aims.

In October, 1963, copies of the brochure, together with a covering letter, were sent to some 1,400 institutions of higher learning in the United States, representing all of the accredited institutions of higher learning in the country with the exception of a few special purpose institutions such as theological seminaries. This mailing alerted the institutions to the study and invited them to communicate any special interests which they might have in the project. Four hundred sixty-five replies were received to this original distribution, all of them expressing a favorable interest in the project.[1]

At the end of the month of November, a selection of 112 institutions was made to serve as a sample to be visited by the staff members of the project for an intensive investigation of their operations.[2] This was intended to be a representative sample of various sizes of institutions, institutions offering differing degrees, institutions operating under different types of control, and institutions located in differing geographical sections of the United States. Attached to this report is a detailed list of these institutions, broken down by geographical area and by type of control and a summary showing the types and numbers of institutions selected in each of the above categories. All of these institutions accepted the invitation to participate in the project and proceeded to forward to the Ann Arbor office copies of their operating budgets, codes of accounts, financial reports, faculty manuals, manuals of administrative procedures, and any analytic studies of a financial or administrative nature which had been carried on within the institutions and were available for such distribution. Files of these reports were set up on each of the institutions and are currently available in the project offices.[3]

Between January 1, 1964 and the end of June of that same year, the project staff visited 109 of the 112 institutions. One more institution, Bennington College, was visited in September of 1964. Two of the original institutions, the Dana Hall Schools (Pine Manor Junior College) and Bemidji State Teachers College in Minnesota, were forced to drop out of the sample due to internal problems at the institutions themselves.

The visitations to the institutions were carried out by individual staff members--each of the four professional staff members visiting approximately 27 institutions. In addition, the staff members visited the offices of 14 different state governing boards or coordinating councils of higher education. These included organizations in New Mexico, Arkansas, Kentucky, Virginia, Utah, Oklahoma, Georgia, Texas, Wisconsin, Vermont, Oregon, Montana, Michigan, and both the State College Board and the Central University in California. In California, the University offices were treated as a state-wide agency and the Berkeley campus visited as an institution. Visitations were also made to two private college coordinating boards, the Board of College Education of the American Lutheran Church in Minneapolis and the Texas Baptist Board of Higher Education in Dallas. Also included were visits to five state budget offices in Colorado, California, Kentucky, Michigan, and Connecticut and to the three regional boards of higher education in the United States--the Southern Regional Education Board, the Western Interstate Commission on Higher Education, and the New England Board of Higher Education.[4]

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[1] Appendix B.

[2] Appendices C, D, E, and F.

[3] Appendix G.

The visitations to the institutions had four major purposes in mind: (1) to determine what activities the institutions were carrying on which it would be necessary to account for in any analytic procedure; i.e., to find out what various things the institutions were doing and in what variety of ways they were carrying on these functions; (2) to determine what analyses, formal or informal, the institutions themselves were carrying on and how these analyses were used in making decisions which have financial implications; (3) to determine in what areas university administrative officials felt a need for data which is not now available, either intra- or interinstitutionally; and (4) to test out various approaches to institutional analysis which the project staff had considered or which the project staff had discovered were being used in other institutions to determine how such approaches might work in each of these institutions and whether or not they would be acceptable to the institution.[5]

The visitations took from one to three days at each institution, depending upon the size and complexity of the institution involved. The interviewer talked with the president, the chief academic officer, the chief business officer, the chief development and planning officer, the institutional research officer, and any other persons with whom the institution thought it valuable for him to talk.[6] An interview guide was developed which was used by staff members when visiting the institutions.[7] This document was filled out by the staff member upon the completion of his visit and placed in the file of the institution along with a summary showing highlights of the visitation and the important things discovered at that particular institution. All of this formed a backlog of data which could be drawn upon in producing the final report.

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[4] Appendix D.

[5] Appendix H.

[6] Appendix I.

[7] Appendix J.

As indicated earlier, the visitations of the sample institutions and the governing-coordinating boards were completed during the month of June, 1964. During the following three-month period, the project staff compiled what was learned during the visitations and began to sketch out what ultimately became the final product of this study. This included the identification of the major cost factors of higher education, an investigation of the ways that they correlate and interact with one another, and the selection of the best measures for these elements so that they can be used as tools of administration in higher education. It also included the identification of forms of financial analysis which can best be used for interinstitutional comparisons and the identification of forms which are not profitable for use in interinstitutional comparisons. This, then, was logically followed by the construction of a procedure for development of this information by individual institutions so that the resultant data will be comparable between institutions.

This general approach was sketched out in skeleton outline with a discussion of why these approaches were taken and what their purpose was in each case by the middle of October of 1964. At the same time, the staff drew up a list of twelve persons who are eminent in the field of higher educational administration and finance who were asked to serve as consultants for the project. This list included three college presidents, two representatives of state boards or coordinating councils, two persons at the college or university vice president or major dean level, one major university budget officer, and four individuals who are widely-known as consultants in higher education and institutional research.

Copies of the first skeleton outline were sent to these consultants around the middle of October, 1964. In November each of the consultants came to Ann Arbor to spend a day with the staff going over their reactions to the preliminary documents. In addition, the documents were also sent to the Advisory Committee, and a meeting of the Advisory Committee was held in late November, at which time the suggestions of that group were obtained.

The next step was the completion of a preliminary draft of the final report based on the findings of the project staff and the reactions contained in the consultations. During the month of April, 1965, the project staff completed this preliminary draft which was then subjected to an institutional evaluation by seven institutions who had agreed to help in this portion of the project.[8] Shortly after the first of May, three copies of a preliminary draft were sent to each of these institutions. In addition, copies were sent to each member of the Advisory Committee and to the consultants who served the project during the fall of 1964.

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[8] Appendices K, L, and M.

At the end of May, members of the project staff visited each of the seven institutions to obtain their evaluation. At each institution the draft had been carefully studied by four to six persons. These persons included the president or a representative of his office, the chief academic officer, the chief business officer, an institutional research officer, if such existed, and any other persons who, in the institution, would bear a major responsibility for carrying out such an analysis if it were to be performed. In reviewing the document, the institutional officials were asked to keep four major points in mind:

1. An evaluation of the usefulness of the results developed through the procedure in the administration of that institution.

2. An evaluation of whether or not the procedure would adequately account for all of the different operations of the institution. By this the question was being raised as to whether or not it "fit" all sizes and shapes of institutions.

3. An evaluation of the practicality of undertaking an analysis of this magnitude in their particular institution. Could it be done, and would the results be worth the trouble necessary to do it?

4. An evaluation of the document, including the conceptual framework upon which it rests, in the light of the official's own professional knowledge.

Two days were spent in each institution talking with persons who had read and studied the document. In each institution the cooperation received by the project staff was excellent. The institutions had thoroughly studied the document and were prepared to give as much time as necessary to their evaluation of it. On June 18, the Advisory Committee to the project met in Chicago for a review of the rough draft. On the basis of the reactions of these two groups, the final report was completed and an Operating Manual developed for the use of any institutions who might wish to put into effect the analytic procedure developed by this study.[9]

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[9] Infra, Part II, pp. 385-443.

CHAPTER IV

FRAMEWORK FOR ANALYSIS: BASIC BODY OF FINANCIAL DATA

Any financial information or related nonfinancial quantitative datum concerning a single institution of higher learning for a single fiscal year, term, or other unit of time is limited in its usefulness when considered alone. Such single-period, single-institution data can fall into perspective and become significantly useful and subject to judgment only when viewed either (1) in relationship to identical facets of information concerning that institution in the past or in the projected future (historical comparison) or (2) in relationship to identical facets of information concerning other members of the universe of which it is a part (interinstitutional comparison) or (3) in relationship to identical facets of information that result from hypothetical manipulation of specific institutional administrative policies or alternatives (policy variation comparison through model simulation). This same statement holds true for information descriptive of a sub-total portion or element of an institution, with the exception that perspective and significance can also be brought to such a datum by viewing it (4) in relationship to identical facets of information concerning other sub-total portions or elements of the institution which are in some way analogous to it in form, structure, or operation (intrainstitutional comparison). A fifth comparison would view data of actual operations (5) in relationship to the optima which are expressions of institutional policies (policy deviation measurement).

If one accepts the above thesis that comparison of "identical facets of information" is essential to the process of making financial information or related data meaningful to the administrator or other user who is asked to render judgments or establish policy or make operational decisions, then those responsible for producing or using such identical facets must in some way be assured that they are indeed identically derived or abstracted and thus validly susceptible of comparison. The development and use of a single total framework of analysis for all institutions of higher learning, complete with concepts, techniques, language, and definitions of a universal nature that could be applied to the most diverse institutions of the present day and that also might be expected to be applicable for some reasonable future period, would provide one means of such assurance. Visits to 110 institutions of higher learning across the nation demonstrated conclusively to the staff of this project that the diversity of local languages and practices in the collection of financial and related quantitative data renders impossible any valid interinstitutional comparison of the information currently produced by these institutions and in many cases cast doubt upon the validity of historical and intrainstitutional comparisons derived therefrom as well. Concurrent explorations with these institutions, through the literature, and with consultants uncovered no single instrument of universal applicability to all varieties of institutions that might produce the desired "identical facets of information" for valid comparability. This report constitutes at least a beginning attempt to provide such an instrument.

Certain of the principles and practices of financial accounting for colleges and universities that have some widespread acceptance provide a starting point for the gross structuring of a framework for analysis of operation. College and university accounting is an evolving technology, however, as illustrated by the current efforts of the previously cited National Committee for the Revision of Volumes I and II College and University Business Administration to revise the sixteen broad basic principles of accounting enunciated by a predecessor committee in 1952. It appears, too, that there is not a high degree of consensus as to principles and good practices at any given time evidenced among college and university accountants. When there are attempts at formulation of principles and practices, these expressions invariably include significant options and permissible variations and alternatives of consequence that make possible quite diverse reflections of the financial operations of an institution "within the rules." Nevertheless, it is to the accounting function within the institution that one must turn to acquire the basic body of financial data. Thus it becomes necessary to indicate as precisely as possible the rules that are to govern the shaping of that body, and to do so without options and without alternatives, as a first step in developing a single total framework that hopefully will permit production of identical facets of information for comparison. This involves making a number of choices--some easy to make, some quite difficult, some perhaps arbitrary when the alternatives appear equally attractive. It should be emphasized again at this point that the choices made and principles selected here are requirements for comparable results from this analytic procedure only and are not intended as a critique of generally accepted accounting practices of colleges and universities.

The Modern Accounting System

An effective modern accounting system for an institution of higher learning has, almost beyond dispute, the following fundamental characteristics and elements:

Double entry methods
Asset, liability, and equity accounts
Income and expense accounts
Fund accounting structure
Classified fund groups (current funds, loan funds, endowment and other non-expendable funds, annuity funds, plant funds, agency funds)
Internal checks and controls

An accounting system with these attributes is the basic requisite of the prescribed single total framework.

Accrual Basis

The first question to be broached, upon which there has been substantial disagreement both in theory and in practice, is that of the degree of use of the accrual basis of accounting that is appropriate for colleges and universities. Without going into the reasons that have been advanced by some for use of a modified accrual basis, i.e., a policy of not matching certain elements of income and expense to each other or to the fiscal periods to which they are applicable, suffice it to say that only the full application of the accrual basis and accrual methods to current fund accounting is tenable for a universal system which would purport to produce consistent comparative interinstitutional or comparative historical financial information. A ground rule is required, then, that identifies the time or period in which income and expense elements are to be recognized: Income is to be recognized as it is earned; expense is to be recognized as it is incurred. The earning of income takes place as the stated or implied conditions attached to the payment (or the obligation to pay) are fulfilled. The incurring of expense takes place as the material or service is consumed or utilized. There are instances in which the conditions attached to the income are so minimal that all the institution must do is accept the payment, e.g., an unrestricted, undesignated gift of a sum of money. In this case the gift would become income immediately upon receipt thereof, nothing further being required of the institution in order to "earn" it. Specifically, application of the stated ground rule would include the following practices:

1. The deferring of all income collected but unearned at the end of each fiscal period to the subsequent fiscal period or periods in which it is expected to be earned. Such amounts should be credited to deferred income accounts and reflected as liabilities. Examples:

    a. Unearned student tuition or fees--defer at the end of the fiscal period that proportion of such tuition or fees unearned on the basis of the number of weeks or days remaining in the instructional period for which the fees were collected.

b. Unearned research grant payments--defer any and all amounts collected which at the end of the fiscal period have not been expended for the purposes of the grant or which have not otherwise been earned at that point under the contract or agreement governing the grant.

c. Unearned restricted gifts--defer any and all amounts collected which at the end of the fiscal period have not been expended for the purposes specified or otherwise earned under the terms of the gift. (Also applicable to income of restricted endowments.)

d. Gifts applicable to future periods--defer any and all amounts collected which have been designated for subsequent periods.

2. The accruing of income which has been earned but not collected at the end of each fiscal period. Examples:

   a. Uncollected but earned student tuition or fees--credit the amounts so earned as income of the period in which earned and reflect the receivables.

   b. Unreimbursed research contract expenses--credit the amounts earned during the period (including any overhead or indirect expense allowance or percentage) as income and reflect the receivables.

   c. Undistributed general (unrestricted) endowment income--credit the amounts earned by the endowment as current fund income of the period and reflect the interfund receivable.

3. The deferring of expenses which have been prepaid but not consumed or expired at the end of the fiscal period. Such amounts should be charged to asset accounts. Examples:

   a. Inventories of supplies and materials--defer cost to subsequent period through inventory asset account.

   b. Unexpired or prepaid insurance premiums--defer unexpired portion of premium cost to subsequent period through prepaid expense asset account.

   c. Interest paid in advance, or discount on notes payable--defer the amount of the prepaid interest at the end of the fiscal period to the subsequent period through prepaid expense asset account.

4. The accruing of expenses that have been incurred during a fiscal period but which have not been paid for. Examples:

    a. Merchandise or services received and consumed during the period for which payment has not been made--charge expenses of the period and reflect the payables.

    b. Annual or vacation leave earned but not taken by employees--charge expenses of the period and reflect the liability.

    c. Bad debt expense--estimate the losses likely to occur from noncollection of income accrued during the period, charge expenses of the period and reflect the asset valuation reserve account.

As a practical matter, if any of the dollar amounts involved in the above applications of the accrual principle are truly tiny or insignificant, particularly compared to the effort and expense that might be required to ascertain the precise division between fiscal periods, they should of course be ignored, but ignored on the basis of materiality of amount, not the nature of the income or expense.

The full application of the accrual principle to institutions of higher learning would include some provision for spreading the cost of buildings, equipment and other wasting fixed assets over the useful lifetime of those assets and thus for the reflection of depreciation as an operating expense of each period. It will be noted, however, that at this point the accrual basis has been incorporated in the framework only as it applies to "current fund accounting." For some several decades the weight of authority in the professional accounting field has opposed the reflection of depreciation expense as such in operating statements for colleges and universities, except for dormitories and other auxiliary enterprises. Fixed assets and funds for the acquisition of such assets are to be reflected in separate Plant Funds. The fixed assets of the educational plant are to be carried at cost in the accounts until disposed of, with no amortization of that cost over the intervening years. Separate annual plant fund statements are recommended that reflect the changes in unexpended plant fund balances and the changes in the "net investment in plant." On the other hand, it has been considered proper to reflect, in the statements of current fund expenditures, those amounts disbursed from current funds for purchase of replacement equipment as current fund expenditures in a fashion coordinate with or even indistinguishable from such expenses as salaries and supplies. This practice is defended by its proponents because equipment replacement is viewed as a normal regularly recurring requirement for continuing operations or rationalized as a sort of depreciation equivalent expected to be financed from Current Funds (regular operating income) rather than from Plant Funds (additions or receipts of a special nature designated for fixed asset acquisition). With the diversity of financing patterns actually found among institutions of higher learning, the assumption that there are such "normal" patterns and practices may be an unwarranted one; there are certainly no universal practices. Replacement equipment at some institutions may be provided through specially designated plant funds always, while at others even the provision of new buildings and first-time equipment might at times be through regular operating income, thus reversing the "usual" situation. A typical practice is the charging of all departmental purchases of equipment, whether replacement or new and additional, to current fund expenditures of the department.

In order that the single total framework might accommodate this variety of financing patterns and practices, it is proposed that any and all transfers to plant funds from current funds and any and all disbursements (or obligations to disburse) from current funds for the purchase of fixed assets (whether additional or replacement) be segregated into a single classification quite definitely removed from all other current fund transactions and presented as a last item in current fund operating statements for analysis and comparison. This would include transfers to plant funds which represent the funding of calculated depreciation expense, as well as any other provisions for renewal and replacement provided the cash or other current assets are actually transferred or designated for these plant purposes. There is not the requirement in this framework that depreciation be calculated or recognized or recorded; indeed, to the contrary, if depreciation expense is simply calculated by the institution and reflected in its financial statements as an operating expense without the transfer to plant funds, then such expense is not to be recognized. The test for inclusion is whether current funds either have actually been expended for durable physical assets or have been transferred to Plant Funds for the purpose of purchase of such assets or the purpose of amortization of indebtedness incurred for the acquisition or construction of such assets (including, as would logically follow, interest on that indebtedness).

Boundaries of the Institution as an Operating Entity

A second area in which there are not settled accounting principles or practices is that of the definition or delineation of the conceptual and fiscal boundaries of the institution which is to be described as the operating entity in the financial statements. Separate corporate identities, substantial delegations of authority and responsibility, or simply differing local concepts about what properly constitutes "the institution," result in the exclusion of organizational units or functions or activities from the accounts and statements of one institution that would be included in the statements of another. Thus further ground rules are required here in order to achieve the objective of shaping possibly varying bodies of accounting data into the single total framework for interinstitutional comparison. The basic rule here suggested is one of inclusiveness, with description of the total operating entity as the goal. For example, the following, that might otherwise have been excluded, should be accounted for under this rule as within and as part of the institution:

1. Separately incorporated research foundation that operates exclusively for, through, and because of the institution, or that is closely associated and identified with the institution.

2. Intercollegiate athletic association separately incorporated, or with its own autonomous governing body, or "run by" or "belonging to" the students.

3. Separate campus or geographically separate health center or other major division, or separate extension activity, provided in each instance that it is an administrative responsibility of the chief officer of the institution.

4. Fund "from private sources" used at the personal discretion of an officer of the institution, e.g., president, athletic director, coach.

The rule of inclusiveness must not be carried to extremes, however. Those student organizations that may be recognized by the institution, but whose financial support and operation is the responsibility only of the participating members (fraternities, sororities, clubs, etc.), are examples of activities or entities that should be excluded or remain excluded from the body of financial data.

Constructive Income and Expenditures

Closely related to the question of what comprises the institution is a third area of concern--that of what constitutes the operating income and expenditures of the institution. In what instances are services rendered for institutions by others, services which are significant in value but which do not involve payment by the institution, to be reflected in the financial statements or in the total single framework for analysis and interinstitutional comparison? This question of the recognition of constructive income and expenditures is one relatively ignored in the college and university accounting literature except for treatment of the contributed services of members of religious orders, where there are some quite well established practices. Ideally, an instrument for interinstitutional comparison would provide for reflection of all expenses of operation of an institution and of all income, whether the transactions were of a variety that would normally be recorded in the conventional financial bookkeeping within the institution because of the payment of monies or of a variety, e.g., the provision of goods and services in kind to the institution or payments on behalf of the institution, that would not force themselves to the attention of the treasurer or accountant. Examination of instances of the latter, however, indicates that it is not always practical or realistic to attempt their valuation and inclusion. The ground rules for the framework developed here would require that the following situations be evaluated in dollar amounts and included in current operating income and expenditures:

1. State makes employer's social security contributions for all university employees from special tax sources.
2. State makes periodic contributions to funded retirement plan matching university employees' payments.
3. State provides unfunded retirement plan or benefits.
4. Members of religious orders contribute their services full-time and part-time as professionals and nonprofessionals to the institution.
5. Oil magnate donates in kind all fuel consumed by the institution.
6. Scholarships are made available by a corporation, an individual, or a governmental agency specifically for students to attend the institution, though the funds are not actually handled by the institution.
7. Faculty salary supplements are paid directly to faculty members by outside benefactors.
8. County pays portion of county agricultural agent's salary directly to him.

In the following instances, the ground rules require that the value or cost of the service rendered be excluded or remain excluded from the body of income and expense:

1. State provides (and requires) central disbursing of monies, all checks for institution drawn against funds in state treasury.
2. State provides central purchasing service.

3. State provides civil service or merit system personnel services (including recruiting, testing, classification, promotion determination, etc.) for certain types of positions at an institution.

4. Alumni volunteers spend thousands of man-hours in fund-raising for their alma mater.

5. Members of the medical profession in the local area contribute occasional (no more than a few hours per year for any one member) teaching services to the medical school or hospital of the institution.

6. Scholarships are granted to individual students by a corporation, an individual, or a governmental agency, with the students attending the institution of their choice.

7. State-wide body serves as governing board or as coordinating council for several institutions and is separately financed by the state.

8. ROTC instructors are military officers paid by the federal government.

Treatment of Unrestricted Income

In addition to the question of whether or not constructive income and expenditures are to be recognized, the determination of what constitutes current income and expenditures requires consideration of the question of whether income that is available to the institution for current operating purposes, but which is subsequently designated for non-current purposes, should be reported as current fund income with the subsequent reflection of a transfer to non-current funds or should simply be reflected directly as an addition to the appropriate non-current fund without going through current funds. For example, three institutions are each given a totally unrestricted, undesignated gift of a sum of money. The governing board of the first institution earmarks its gift upon receipt for the purpose of building a library. The board of the second institution accepts its gift with delight and relief that the sum provided will eliminate an impending current operating deficit for the year. The board of the third institution expresses its gratitude to the donor at the time, states that the specific purpose for which the gift should be used will be determined after due deliberation, and two years later establishes a memorial student loan fund in the name of the donor, transferring the exact amount of the original gift from the general current fund for that purpose. The nature of the gift to the institution in each instance is exactly the same. Only in the case of the second institution, however, would currently accepted accounting principles require the reporting of the gift as current fund income. In the other two instances the gift might optionally be reported as current fund income, but preference appears to be given to other treatment. The ground rule for the single total framework proposed here would require the reporting of such gifts invariably as general current fund income: Any income available to the institution for general current purposes shall be reported as general current fund income, regardless of any subsequent use, designation, or disposition for non-current purposes. Such subsequent use, designation, or disposition for non-current purposes shall be reflected as transfers from current funds to the appropriate non-current fund groups. In order for income to be reflected directly as an addition to a non-current fund, the designation or restriction must arise from outside the institution. The governing board is here considered as being within, or a part of, the institution. Thus, if the gift or other income reaches the board with an unrestricted status, then it is considered available to the institution for current purposes under this concept, even though the board may subsequently "designate" some non-current disposition. The latter action would simply constitute a directive to transfer the stated sum from the general current fund to the indicated non-current fund. (The governing board cannot, however, effectively authorize a transfer from the general current fund to a restricted current fund, for the simple reason that funds must be restricted from outside the institution in order to qualify as restricted current funds. Such an act by a governing board actually amounts only to a budgeting of a sum from the general fund for the specified current purpose or activity. Even the separate "funding" of the sum would result not in the creation of a restricted current fund, but rather of an artificial subdivision of the general current fund.)

The application of this ground rule to treatment of student fee income requires some further elaboration. If a fee or specified portion of a fee is specifically assessed against the student for a stated non-current purpose, it would be considered as bearing a restriction or designation, arising from outside the institution, even though such designation might not be legally binding on the institution. This would permit the direct crediting of such fees as additions to plant funds, for example, without going through current funds as income and subsequent transfer out. Such fees would not be income available to the institution for current purposes in this framework.

Transfers to and from Current Funds

A fifth consideration in determining the basic body of financial data to be used for analysis and comparison is the question of what charges and credits are to be made directly to Surplus (or its subdivisions, Unappropriated Surplus and various Surplus Reserves) and thus not reflected in the Statement of

Current Operations. Apparently acceptable accounting practice today would permit the reflection of transfers to current funds (from non-current funds) and transfers from current funds (to non-current funds) either as direct credits and charges to current funds surplus in the Statement of Changes in Surplus or as transactions of the year in the Statement of Current Operations if separately indicated therein. Development of our single total framework requires a choice here. The ground rule proposed is that all transfers to or from current funds be reflected in the operating statement, separately identified therein; only those transactions which are corrections of prior year operating statements would then qualify as appropriate direct charges or credits to surplus accounts. (This would not prohibit, however, transfers between Unappropriated Surplus and Surplus Reserves, which are simply changes between subdivisions of the total surplus.)

Many institutions have adopted the practice of using the phrase General Current Fund Balance or Balances rather than the word Surplus. That phrase should be substituted for Surplus in the foregoing discussion for those institutions.

The Fiscal Year

The fact that the fiscal year established for an institution frequently bifurcates an instructional term (most often a summer session or third trimester split by a June 30th fiscal closing) presents a sixth area of difficulty in adapting accounting data for cost analysis and comparison. Although ideally an institution would adapt a "natural" fiscal year that would better fit its pattern of instructional periods, this often is not feasible. State institutions, for example, are frequently tied, for very practical and often obvious reasons, if not through statutory or administrative law, to the fiscal cycles of their respective state governments. The single total framework prescribed here thus does not require the changing of an institution's fiscal year where this awkward situation exists, but rather requires the merging of certain financial data from the two fiscal years in order to provide complete information concerning the single instructional term.

Level of Organizational Unit for Certain Charges

Most of the expenses or expenditures of an institution using a typical accounting system will be charged to or identified with an organizational unit of some kind within the institution. For quite a variety of types of expenses, however, the practice varies between institutions as to whether the charge will fall against an institution-wide "general expense" kind of account or against the account of an organizational unit, and again, in the latter case, as to what level of organizational unit will bear the charge. Thus travel by a faculty member to attend a meeting of his professional organization would be charged by custom to a central Travel account at one institution, to a school or college level account (controlled and administered by the dean) at another institution, and to a departmental level account (controlled and administered by the department head) at a third. Before the basic body of financial data produced by the accounting system would have the comparability required for development of interinstitutional information, it must be tested by and brought into conformity with this seventh ground rule: The following types of expenses should be charged to the lowest level of organization with which they can be identified, that is, to the unit "containing," at the time, the individual or the activity utilizing or being served by the supply or service or expense item:

Travel
Telephone toll calls
Postage, express, and freight
Professional memberships
Departmental memberships
Subscriptions
Office supplies
Mimeographing
Printing
Stenographic service
Equipment repair
Data processing

This rule would apply even though the item might be budgeted or controlled at a higher level. It would also apply whether the item was furnished to the department from without the institution or from a central service or supply within the institution.

For an analogous group of expense items which might optionally in good accounting practice be charged either to the operating department or to a Plant Operation and Maintenance account, the arbitrary rule established here is to charge all items involved in "the provision and maintenance of indoor and outdoor space, properly conditioned, serviced and protected" to Plant Operation and Maintenance accounts rather than to the space-using departments. This would include specifically, for example:

Utilities:
    Lights and power
    Water
    Sewage disposal
    Garbage disposal
    Heat
    Air conditioning
Janitorial service
Building repair, interior and exterior
Office, classroom, laboratory remodeling
Elevator operation

Specifically excepted from the latter rule are student and faculty housing, which should bear individually charges of this nature. In the case of such housing, the direct service offered and sold by the institution is "space, properly conditioned, serviced and protected" and the costs of providing and maintaining that space are the direct costs of the service.

CHAPTER V

FRAMEWORK FOR ANALYSIS: THE FUNCTIONS OF THE INSTITUTION, THE ANALYTIC CATEGORIES, AND THE ANALYTIC UNITS

Once the basic body of financial data produced by the accounting system for a fiscal year has been shaped by the application of the ground rules just described to a consistent gross content, then some prescribed uniform pattern and technique of analysis of that content is required for the development of comparative management data, whether the comparison be historical, interinstitutional, intrainstitutional, or hypothetical (through model simulation). A single framework of analysis that will serve each of these kinds of comparison is, of course, desirable. The specific such single total analytic framework described here is based on an "analytic concept of an institution of higher learning" which is described in the first chapter of this document. It will be recalled that a college or university was viewed as a service enterprise, providing a single environment for learning, but operating through many discrete environmental units and support units that are classified into five types of services or major functions: Instruction, Research, Services to the Public, Services to the Academic Community, and General Support. Every dollar of current operating expense of the institution is to be identified with one or another environmental or support unit in one or another of these five functions. Every dollar of current fund income is to be identified with one or another of the same five functions or else is to be classified as General Institutional Income.

Each of the five functions is comprised of a number of subfunctions or analytic categories within which the discrete environmental and support units are to be fitted, and many of the categories themselves are broken further into subcategories. The summary outline below presents this dimension of the conceptual framework to the first and second levels of analysis only, i.e., to the functions and analytic categories only:

Summary Outline

I. Instruction

- A. Organized Teaching of Degree-Credit Courses
- B. Academic Counseling
- C. Provision of Professional Training Facilities
- D. Admissions
- E. Registration and Allied Activities

II. Research

- A. Research Projects
- B. Faculty Development Time
- C. Provision of Special Research Facilities

III. Services to the Public

- A. Organized Teaching of Non-Credit Courses
- B. Dissemination of Knowledge through Other Than Organized Teaching
- C. Regulation and Inspection

IV. Services to the Academic Community

- A. Student Development
- B. Financial Aid
- C. Care, Subsistence, and Recreation

V. General Support

- A. Learning Resources
- B. Plant Operation and Maintenance
- C. Administration
- D. Promotion and Development
- E. General Institutional Expense

Many different specific outlines of this sort, each with its own rationale, might be developed for functionally categorizing the operations and the related income and expenses of an institution. The particular outline which has been evolved by the staff of this project is presented as one possible perspective, hopefully a rational and consistent one, for the use of institutions which might wish to compare operations with other institutions using an identical analytic framework. This outline, presented more concisely just above, is further developed and expanded below with definitions for each of the functions and analytic categories.

The classifications, terminology, and definitions presented here may appear to imply approval or preference of certain organizational plans or structures above others or appear to champion a uniformity of structure and operation or appear to advocate certain educational philosophy or philosophies. That there be such implications is inescapable when one is attempting to fit all of higher education within a single mold, but no emphasis on them is intended here.

The definitions are intended to be strictly and narrowly construed, not broadly.

Expanded Outline with Definitions of Functions and Analytic Categories

I. Instruction. The methodical imparting of knowledge, through an active process involving teachers and students, resulting in formal credit toward an academic degree. The one essential function, *sine qua non*, of an institution of higher education, one of the three primary functions and one of the total of five all-inclusive functions. In this analytic framework, the more immediate costs of providing this instruction are divided into five parts or categories.

A. Organized Teaching of Degree-Credit Courses. An analytic category, within the function of Instruction, of environmental units providing instruction of students in organized courses offered for credit or advancement towards an academic degree or designed to enable students to qualify for such courses, including any and all formal arrangements and assignments for contact between teachers and students for such instructional purposes. Included are (1) group classes, (2) one teacher-one student relationships, (3) internship or experience courses, (4) correspondence study. The basic environmental unit for cost analysis is the course, course division, or section. The elements of expense or cost to be included are: (1) direct academic compensation and (2) immediate support. Teaching time for a course includes that spent on preparation, grading papers, conferences with students, personal reading and research specific to the course, and preparation of materials, as well as actual time spent in class, laboratory, office, or field in formal face-to-face, face-to-camera, or correspondence teaching.

B. Academic Counseling. An analytic category, within the function of Instruction, of environmental units providing formal assigned consultation with students by faculty members concerning the total academic program and progress of the student. This includes faculty time involved in both the routine periodic approval of courses to be taken and the more intensive counseling that might arise in overall program selection and planning. There are two subcategories:

1. Assigned counseling of students on program.

2. Graduate committee service (not including effort of the major professor or committee chairman, which is to be indicated as Supervision of Graduate Candidacies, a One Teacher-One Student Relationship under Organized Teaching).

C. Provision of Professional Training Facilities. An analytic category, within the function of Instruction, of support units providing special environments which are primarily for the training or teaching of the student in the practical working situation of his field or profession and which invariably have some marketable "by-product." The training facility may be provided either through the institution creating and maintaining it or through the purchase of the use of such a facility from an outside source. The existence of a marketable by-product is essential for an activity to be placed in this category, whether that product (or service) is actually sold or not. There are nine subcategories in this analytic framework (but the addition of further subcategories is not precluded):

1. Facility for professional training of education students in a classroom situation (Demonstration School, Nursery School, or the purchase of the use of such facilities from a public school system)

2. Facility for the professional training of nutritionists or dieticians (Home Economics Cafeteria)

3. Facility for the professional training of agricultural specialists (Farm, Dairy, Creamery)

4. Facility for professional training of foresters (University Forest)

5. Clinics, Counseling Centers

    a. Speech and Hearing
    b. Psychology
    c. Reading
    d. Dental
    e. Veterinary

6. Facility for the professional training of medical students (Teaching Hospital or the purchase of the use of such facilities from a public or private hospital)

7. Facility for flight training (Airport)

8. Facility for professional training of hotel administrators (Hotel)

9. Facility for professional training in the theatre arts (Theatre)

D. Admissions. An analytic category, within the function of Instruction, of support units concerned with screening, selecting, and admitting students to the institution for instruction.

E. Registration and Allied Activities. An analytic category, within the function of Instruction, of support units concerned with bringing students and teachers together for courses of instruction and recording and transmitting the results thereof. Includes the activities and processes of registration, class scheduling, assignment of instructional space, production of class rolls, recording and transcribing student grades, and the printing of course catalogs and bulletins.

II. Research. Critical and exhaustive investigation or experimentation having for its aim the discovery of new facts and their correct interpretation, the revision of accepted conclusions, theories, or laws in the light of newly discovered facts, or the practical application of such new or revised conclusions, theories, or laws, including the training of students through such investigation or experimentation. One of the three primary functions and one of the five of the total listing of functions of institutions of higher learning in this analytic framework, this function is subdivided into three categories:

A. Research Projects. An analytic category, within the function of Research, of environmental units carrying on the substantive research (as opposed to those units which provide special research facilities that may serve or be utilized by a number of research projects) undertaken by the institution where the objective and subject matter is clearly recognizable and identified. Each such environmental unit constitutes a Research Project and should bear a title or designation indicative of its specific research objective. Each project also requires:

1. Identification by subject matter, e.g., physics, economics, astronomy, psychology.

2. Identification with a separate "organized research unit" or with an instructional department or other organizational unit of the institution.

3. Identification as having one of the following characteristics (these are mutually exclusive categories):

    a. Research Projects Involving Students. An analytic subcategory which includes those research projects wherein students actively and substantially participate in the investigatory process (whether or not teachers are involved). Such participation must require some knowledge of the subject matter field. Students involved may or may not be compensated for their participation.

    b. Research Projects Involving Teachers But Not Students. An analytic subcategory which includes those research projects that do not involve students of the subject matter field actively and substantially in the investigatory process, but which are carried on by or do substantially involve members of the faculty who also formally participate in the organized teaching function of the institution.

    c. Research Projects Involving Neither Teachers Nor Students. An analytic subcategory which includes those research projects that do not involve students of the subject matter field actively and substantially in the investigatory process, and the professional staff of which do not formally participate in the organized teaching function of the institution.

B. Faculty Development Time. An analytic category, within the function of Research, of environmental units providing compensated "released" time to members of the faculty to be used for informal, nonproject research or professional development or writing for publication, where formally recognized by the institution as part (or possibly all) of the faculty member's assignment for an instructional period. There are two subcategories:

1. Resident
2. Leave with pay

C. Provision of Special Research Facilities. An analytic category, within the function of Research, of support units providing the operation of facilities or special environments that may serve or be utilized by a number of research projects. Examples are a research farm, a nuclear reactor, an atomic particle accelerator, a research computation center.

III. Services to the Public. Those educational activities of the institution which are neither Instruction nor Research as defined and which primarily serve a clientele other than the institution's own staff and degree-credit students are conceived in this analytic framework to constitute the primary function Services to the Public. This function is subdivided into three analytic categories:

A. Organized Teaching of Non-Credit Courses. An analytic category, within the function of Services to the Public, of environmental units providing instruction for members of the general public in organized teaching situations which do not carry credit towards a degree offered by the institution and are not designed to enable students to qualify for degree-credit courses. This would include non-credit courses; short-term institutes, workshops, and conferences; courses in military training whether credit is granted for military courses or not; supervision of postdoctoral work.

B. Dissemination of Knowledge through Other Than Organized Teaching. An analytic category, within the function of Services to the Public, of environmental units providing a whole range of activities and services of a "public service" nature that have accreted to institutions of higher learning but which have as a common characteristic the dissemination of knowledge by the professional staff of the institution through some medium, other than "Organized Teaching" as previously defined, to some segment of the public. Subcategories include:

1. Agricultural and Home Demonstration Extension
2. Community TV and Radio
3. University Press
4. Scholarly Journal or Magazine Publication
5. Elementary and Secondary School Survey
6. Consulting Services

C. Regulation and Inspection. An analytic category, within the function of Services to the Public, of environmental units providing non-instructional, non-research, routine services, for government or industry or other segment of the public, which are required for the regulation or inspection of products, persons, or organizations. Examples are:

1. Professional Licensing
2. Fruit and Vegetable Inspection
3. Soils Analysis
4. State Chemical Laboratory

IV. Services to the Academic Community. Those activities, facilities, organizations, and enterprises within institutions of higher learning which provide services which are not educational in themselves but which have as their purpose the fulfillment of personal individual needs of members of the academic community. Such services are provided directly to individual students and staff and occasionally or incidentally to members of the general public. These services are ancillary or expeditious rather than essential to the primary educational functions. This is the fourth function of the five in this analytic framework and it is subdivided into three categories:

A. Student Development. An analytic category, within the function of Services to the Academic Community, of support units established to encourage or stimulate development of aspects of the individual student other than the purely academic or intellectual. There are these subcategories:

1. Social-psychological counseling
2. Religious training or activities
3. Vocational testing and placement

B. Financial Aid. An analytic category, within the function of Services to the Academic Community, of support units involved in providing students with financial assistance toward meeting their expenses. There are two subcategories:

1. Operation of student financial aid offices and services (for financial counseling, loan and scholarship administration, campus employment placement, etc.).

2. Payments made directly to or constructively for students. This subcategory includes only "free grants," not wages, salaries, or other compensation paid in consideration for services rendered by the student to the institution.

Major varieties of such free grants include: scholarships, fellowships, tuition fees remitted or waived, cash prizes and awards.

C. Care, Subsistence, and Recreation. An analytic category, within the function of Services to the Academic Community, of support units providing for the bodily needs, the physical care, and the entertainment and recreation of students and/or staff (and occasionally or incidentally of the general public) in order that they may be adequately or conveniently sustained for participation in the educational activities of the institution. Subcategories include:

1. Housing
2. Food Service
3. Stores and Shops (Bookstore, etc.)
4. Laundry
5. Vending Machines
6. Student Union or Center
7. Health Service or Infirmary
8. Parking Lots and Structures
9. Airport
10. Intercollegiate Athletics
11. Intramural Sports
12. Student Organizations and Activities (student government, campus newspaper, yearbook, class activities, dramatics, glee club, band, orchestra, choral union, social activities)
13. Concerts, movies, lectures, professional theatre

V. General Support. The fifth function of this analytic framework, which includes those activities supporting, rendering services to, or exercising responsibility for two or more of the other four functions. The General Support activities have as their "clientele" the four other functions and constitute a major portion of those expenses of operation frequently viewed as "overhead" or "indirect." This function includes the following categories:

A. Learning Resources. An analytic category, within the function of General Support, of support units which provide physical, mechanical, or electronic repositories or processes for the storage, manipulation, or transmission of information or knowledge. Subcategories include:

1. Library
2. Museum
3. Audio-Visual Aids (motion pictures, slides, film strips, tapes, records, charts, etc.)

4. Language Laboratory (carrels for programmed practice)
5. Automated Information Storage and Retrieval System
6. Instructional Radio and Television
7. Teaching Machines

B. Plant Operation and Maintenance. An analytic category, within the function of General Support, of support units for operating and maintaining the normal physical locus for the educational activities of the institution, including:

1. Care and Cleaning of Grounds, Walks, Streets
2. Maintenance and Repair of Buildings
3. Routine Care and Cleaning of Buildings
4. Provision of Utilities--Heat, Light, Power, Water, Sewer
5. Protection of Plant and Persons--Police and Watchmen; Fire Protection; Fire Insurance
6. Transportation Services--General Trucking; Central Motor Vehicle Service; Campus Bus Service
7. Rental of Space
8. Plant O & M Administration

C. Administration. An analytic category, within the function of General Support, of support units providing the top level of general supervisory administration of the operations of the institution. This category includes, and is limited to, the following subcategories:

1. Governing Board
2. Chief Administrative Office (President, General Vice-President, Dean of Administration)
3. Academic Administration (Academic Vice-President, Dean of the Faculty)
4. Business and Financial Administration and Services (Fiscal Vice-President, Controller, Business Manager, and staffs)
5. Research Administration (Vice-President for Research, Director of Research)
6. Personnel Administration and Services (including Recruitment Expenses and Administration of Staff Benefits)
7. Student Affairs Administration (Vice-President for Student Affairs or Dean of Student Affairs)
8. Institution-Wide Committees of the Faculty
9. Institutional Research
10. Campus Planning

D. Promotion and Development. An analytic category, within the function of General Support, of support units designed to promote and maintain a favorable level of support, both financial and otherwise, from the community at large. This category would include the following subcategories:

1. Fund-raising
2. Alumni Relations
3. Public Relations and Publicity
4. Student Recruitment

E. General Institutional Expense. An analytic category, within the function of General Support, of support units comprising all other expenditures (exclusive of Learning Resources, Plant Operation and Maintenance, Administration, and Promotion and Development) which are of a general character, not relating to any specific division of the institution. Subcategories include:

1. Institutional Memberships
2. Professional Fees and Consultants
    a. Legal
    b. Investment Counsel
    c. Audit
    d. Accreditation and Self-Study
3. Communications Services
    a. Post Office, Mailing Department, Messenger Service (not postage)
    b. Telephone and Telegraph (not toll calls)
4. Insurance (fidelity, liability, workmen's compensation, not property)
5. Interest (on current funds, not plant funds)
6. Bad Debts
7. Official Entertainment
8. Commencement, Convocations, Public Events
9. Unallocated Staff Benefits
    a. Faculty Children Fee Remission and Payments (including Exchanges)
    b. Employee Tuition Fees Waived
    c. Faculty Club Subsidy
    d. Moving Expense
    e. Change in Accrued Leave Liability
    f. Extended Sick Leave
10. Allowances to Retired Personnel; Payments to Dependents of Deceased Personnel
11. Unassigned Academic Personnel

CHAPTER VI

FRAMEWORK FOR ANALYSIS: THE ANALYTIC UNITS

Cost Components of the Analytic Units

The categories and subcategories defined in the previous section are the classifications under which the environmental units and support units (the two varieties of analytic units) are to be subsumed. The environmental unit, it will be recalled, was described as the basic operating entity through which the institution performed its function and was defined as "the fundamental operating unit of the environment which comes into direct contact with the user of the environment and renders directly to him a service which is substantially different from that rendered by any other unit of the environment." In the case of the conventional teaching situation, one environmental unit is obvious--the organized *class* or *section*. The research *project* provides a natural, almost self-evident environmental unit in the research function. Readily apparent entities seem to emerge from other areas of an institution's operation, but not from all. The identification of analogous environmental units for certain functions or categories has involved some artificiality and some arbitrary selections from among alternative possibilities in a number of instances in the development of this analytic framework. The same has been true for some of the support units as well. Nevertheless, some one unit has been identified for each of the analytic categories or subcategories and it is this fundamental operating entity, the environmental or support unit, which serves as the cost center with which operating expenses are to be invariably identified initially. The chapters which follow enumerate these analytic units and provide structures for the description of their characteristics, for the measurement of their utilization, and for the calculation of utilization unit costs.

The methodology of identifying or assigning dollar costs or expenses to an environmental unit is a universal one applicable to the entire institution. Basically, the procedure calls for the identification of only the relatively direct and more obviously identifiable costs to the environmental unit. The more remote or indirect costs are attributed to and remain with the General Support function and categories and constitute the costs of the support units within those categories. There is no attempt to allocate or distribute or attribute these more remote or "overhead" costs of the supporting functions to the prime functions, nor is there a "total per student cost" to be produced through this suggested procedure. Although a number of institutions and state systems have experimented with various methods and devices for making such allocations, none of these have demonstrated either compelling rationales for such allocations or indications of causal relationships between the overhead elements and the direct functions or direct costs. In every instance relationships have been assumed rather than demonstrated. This is not to say that further explorations might not produce adequate bases, but that the present state of the art in general compels the rejection of these "total" approaches as potential bases for sound interinstitutional comparison.

In addition to the categories of support units of a more indirect or remote nature that are classified within General Support and which are limited to those that may serve two or more of the direct functions, there are other categories of support units that serve only one of the functions. These latter support unit categories similarly maintain their identities but each such category is subsumed under that direct function to which it relates, e.g., Instruction or Research.

The elements of expense to be identified with each environmental unit, and thus subsequently with the subcategories and categories that contain and summarize those environmental units, may be outlined thus:

1. Direct Academic Compensation
2. Immediate Support, consisting of:
    a. Administrative Academic Compensation
    b. Non-Academic Compensation
    c. Supplies and Expense

The elements of expense to be identified with each support unit, and thus subsequently with the subcategories and categories that contain and summarize those support units, are simply these:

1. Personal Compensation
2. Supplies and Expense

The word compensation as used here and throughout this procedure refers to those expenses incurred in payment for personal services rendered to the institution by the individual employee and consists of, specifically:

1. Gross cash salary of the individual from all institutional sources before deductions or exclusions. This would include, for example, salary "supplements" from the institution's research endeavors, from extension or overload teaching, or from a foundation associated with the institution. In the case of agricultural extension agents, the total salary from federal, state,

and county sources would be included. Income from "outside consultation" services rendered independently by the individual to industry, to government, or to other institutions would not be included.

2. Certain staff benefits, directly and explicitly identifiable with the individual as to dollar amount or value:

    a. Employer's FICA contribution.

    b. Employer's contribution to TIAA-CREF or state or other retirement fund, including amount or estimated amount contributed directly by state or other governmental unit or estimated present actuarial value accrued in unfunded plan.

    c. Employer's share of medical, hospital, accident, or life insurance premiums (net).

    d. Market value of goods or services provided to employee for personal use or consumption, e.g., housing, food, servants.

    (The following staff benefits are not to be included as Compensation here, but are reflected rather as Unallocated Staff Benefits under Institutional Expense under General Support: faculty children fee remission and payments (including exchanges), employee tuition fees waived, faculty club subsidy, moving expense.

    (Sabbatical and similar leaves with pay are not considered staff benefits as such, but expenses categorized as Faculty Development Time in the Research function.

    (Incidental benefits such as reduced admissions to athletic, cultural, or entertainment events, bookstore discounts, recreational facility privileges, etc., are to be ignored.)

The phrase direct academic is intended to describe those positions or assignments which bring the employee into direct contact with the student or other consumer of the primary educational services of the institution in the process of supplying those services, or which otherwise bear major responsibility for carrying out the direct functions of the institution. The direct academic is the individual who is teaching the class or doing the research. The concept is similar to that of the group of individuals often described as the faculty of an institution, but is probably not precisely coterminus technically with that term as delineated at any one institution. Direct academic assignments are to be found only in environmental units, not support units, and thus are to be found only in the following analytic categories:

Instruction: Organized Teaching of Degree-Credit
Courses, Academic Counseling
Research: Research Projects, Faculty Development Time
Services to the Public: Organized Teaching of Non-Credit
Courses, Dissemination of Knowledge through Other
Than Organized Teaching, Regulation and Inspection

The persons filling the positions or assignments of a direct academic nature would, at most institutions and in most instances, hold one of the academic ranks or that of graduate assistant.

The phrase administrative academic applies to those positions or assignments charged with the administration or supervision of two or more environmental units.

Non-academic compensation applies to all positions or assignments not included in the direct academic or administrative academic definitions.

Supplies and expense consists of all current operating expenses other than compensation for personal services.

This analytic framework views the direct academic as the primary instrument through which the institution creates the environmental unit and performs its services (in the direct educational functions, at least). The remaining resources of the institution are applied in support of the efforts of the direct academic. The elements of immediate support enumerated above include the administrative and service assistance rendered to the direct academic by those organizational units of which he is part or which are closest to him. They also include those materials, supplies, and other expenses which are consumed directly by the direct academic and/or the users of the environmental unit.

Identification of the direct academic compensation applicable to a given environmental unit requires some device to divide the compensation of an individual employee among the several environmental units with which he might be involved. Many cost and resource utilization studies have faced this problem of how a faculty member's time or effort, and hence salary or compensation, is to be divided among several responsibilities. The approaches taken seem to divide themselves into two general groups: (1) the "what-does-it-actually-cost" school, which relies upon an after-the-fact faculty service report wherein the employee estimates the per cent of time (or average number of hours per week) which he has devoted to each activity during the preceding term, and (2) the "what-is-the-institution-buying" approach in which the administration or department head makes the division through its own determination of the value (in per cent of full-time responsibility) of each faculty assignment. Each of these two approaches gives an ascertainment of the cost, with the first reflecting the seller's (faculty member's) evaluation of the relative worth of each of his several responsibilities and the second the buyer's (institution's) evaluation of the relative worth of each of those same responsibilities. Needless to say, each approach has its advantages and disadvantages, but a choice must be made between the two. The choice here is that of the second approach, which is believed to have greater consistency and stability and thus greater usefulness, particularly when utilized as a basis for future projection as well as current cost-finding. The department head or other immediate supervisor or administrator establishes the total recognized or assigned workload of the individual in specific quantified terms: the percentage of full time applied to each environmental unit and to each of any other assignments for the term. (It is assumed that the program of an institution is built around its major instructional periods, whether they be semesters, quarters, trimesters, or other terms, with or without summer sessions, and that the workload assignment for each academic can reasonably be assessed for each such term. It is also assumed that the compensation of each academic for the instructional period can be determined, i.e., that the annual compensation, or academic year compensation, or summer session compensation, or compensation for any other contractual period can be allotted equitably to each of the instructional periods included in the contractual period. Where the instructional periods are of unequal length or value, it is suggested that compensation be divided in proportion to the number of instructional weeks in each of those unequal terms.)

Implicit in the approach chosen is the assumption that some kind of norm, perhaps in terms of full-time-equivalency, has been established within the institution for each assignment for each individual. This assumption is equally implicit, however, in the very fact that every full-time faculty member at every institution has a set of assignments or responsibilities that in total presumably require his attention for at least the full normal working hours of the instructional periods. What is required here is a formal expression of that quantification--an identification of each of the parts that go to make up that whole (or fraction of a whole in the case of part-time faculty) and an approximation of the size of each of those parts. The view here is that the responsible immediate supervisor, consulting as he wishes with the employee, can best state the nature and value of the assignments of the employee.

The percentage of full time applied to an environmental unit by an individual in an academic capacity (assigned value) multiplied by the total full-time compensation rate of that individual for the term results in a dollar figure which becomes part of (or all of) the cost component direct academic compensation for that environmental unit. The sum of similar dollar figures for all individuals directly engaged in that environmental unit provides the total direct academic compensation for the unit; the sum of decimal full-time-equivalencies of those individuals engaged in the unit provide an index of human resources so assigned that is independent of the dollar value. In many instances, in fact most, such summation of dollars and full-time-equivalencies is not required, since the time of only one individual may constitute the entire direct academic time assigned to the unit.

The first cost component within the immediate support group, that of administrative academic compensation, represents a secondary rather than a direct allocation of personnel time and compensation. This is the compensation cost of the time spent by "first echelon" academic administrators, typically from department heads up through deans of colleges, or analogous ranges of positions (but not including an Academic Vice-President or Dean of Faculties or other top general office which is to be considered as part of the Administration category in the General Support function), on the administration and supervision of the activities within their responsibilities. Also to be considered as administrative academic time is that faculty time spent in such administrative-like activities as departmental or college committee work, or curriculum revision, or supervision of multi-section courses, or evaluation of curriculum, teaching, or teaching personnel, where such time is significant enough to be given an assignment value by the faculty member's immediate superior. The administrative assignments and their values in full-time-equivalencies and in compensation dollars are not directly identifiable with specific individual environmental units, but rather with whole groups of environmental units for which the administrative assignments have responsibility. Thus a chemistry department head's 75% FTE (full-time-equivalency) assignment for administration of his department may involve responsibility for a great many chemistry courses, course divisions, and sections, for several research projects, for the counseling of chemistry majors, and for the use of "faculty development time" of faculty members under his aegis. The question arises, of course, as to how this cost component, this element of immediate support, this administrative academic compensation, may equitably be spread among those many responsibilities which have required this administration. Since administration is basically an activity involving human relationships, it is proposed that such relatively direct administrative costs be apportioned to those subordinates involved in the activities for which the administrator has responsibility, in correspondence with the full-time-equivalencies of those thus administered, and that the costs then flow through those subordinates to the environmental units or other assignments of the latter in proportion to the FTE values of those assignments. Thus a chemistry course that represented a .20 FTE assignment in one term for a full-time instructor who was one of a total of 15.0 FTE academics for whom the .75 FTE department head was responsible would bear 20% of one-fifteenth of 75% of the department head's compensation for that term. (It is possible, of course, for an environmental unit to bear administrative academic compensation cost allocated from more than one administrator, where there is joint responsibility for an activity.)

The other two cost components viewed as elements of immediate support costs of the environmental unit, namely, non-academic compensation and supplies and expense, each may flow to the environmental unit in two different ways. First, there are those non-academic employees whose compensation is directly identifiable with and directly allocable to certain environmental units and there are supplies and expenses which are also directly identifiable with and directly allocable to certain environmental units. Secondly, there are non-academic employees whose compensation is not directly identifiable with or directly allocable to any of the environmental units but which rather may be identified with the individual academic employees they serve and only through those employees to the environmental units, and there are supplies and expenses which similarly are identifiable to the environmental units only indirectly through the individuals which utilize them. In this analytic framework, the direct identifications of non-academic compensation and supplies and expense with the environmental units, as envisioned in the first instances cited above, is to be accomplished wherever possible (e.g., clerical help and physical materials acquired exclusively for, and used exclusively by, a single research project). When this is not possible, and only when this is not possible, the non-academic compensation and supplies and expense amounts are to be aligned with that group of academics which they serve or support and then apportioned to the individual environmental units and other assignments of those academics in proportion to the FTE value of each, similar to the fashion in which administrative academic compensation was apportioned to the individuals administered and thence through them to the environmental units.

The mechanics of identifying the dollars and FTE staff in the cost components of each of the support units parallel those described for the environmental units, except that the classification structure for those components is simpler, consisting only of (1) personal compensation and (2) supplies and expense. The classifications of academic vs. non-academic and direct vs. administrative are not preserved, or in fact even required, in describing the personal compensation cost components of the support units. The phrase personal compensation includes the dollar cost, accompanied by the FTE value, of that time of any employee assigned to a support unit. The distribution of the compensation cost of an individual employee assigned to more than one support unit (or to a combination of support units and environmental units) is determined by the most immediate superior or administrator who has responsibility for or direct knowledge of the duties of the employee, and is accomplished in the fashion first described for academics--through calculation or estimation of an FTE value for each of the assignments of that employee. Each first echelon administrator with responsibility for more than one support unit would have his compensation allocated to those support units in proportion to the FTE value of the staffs administered in each of those support units. Similarly, supplies and expense not directly identifiable with a single support unit but identifiable with a group of units would be allocated to each of those units in proportion to the FTE staff of each.

It will be noted that the compensation dollars are always accompanied by an FTE employee or staff value whether assigned to environmental units or support units. Another individual universal requirement needs to be mentioned at this point: both compensation dollars and FTE values should be identified or divided as student vs. non-student. This permits derivation of a whole dimension of information on student employment and financial support often desirable to management at various levels.

Utilization Measures and Utilization Unit Costs

Once the entire complement of environmental units and support units comprising the institution's operations have been identified and the direct costs (direct academic compensation and immediate support) of each such analytic unit determined through the procedures just described, the next major step in development of the data system is the selection of measures of use of these units and determination of direct costs per user or using unit. Just as there are varieties of environmental units and support units, so there are varieties of these utilization measures and thus varieties of bases for determining utilization unit costs. Exploration of the nature of the service being performed by the environmental unit or support unit in many instances readily produces a single concretely visible concept of user, e.g., the student registered in the course (or student registration) is the obvious utilization unit for an Organized Teaching environmental unit. In other instances, the user is readily ascertainable but the counting and recording of the number of users is not a customary practice of the institution, e.g., perhaps, the number of students given Academic Counseling as an assignment of a faculty member. In yet other instances, the users are identifiable in general, but difficult or impossible to quantify with precision, e.g., the viewers of a program presented on an educational television station or the ultimate "users" or benefactors of a medical science research project; in such instances the adoption of a potential utilization unit may hinge upon whether or not the number can reasonably be estimated. In yet further instances, more than one set of users may be found, or it may seem desirable to quantify the potential users as well as the actual users and reflect a utilization unit cost on each basis. Since these utilization measures differ from one variety of analytic unit to another, the selected and recommended measures for each function or category or subcategory are described separately in the subsequent chapters as the several functions are considered. The utilization unit cost in each instance results simply from the arithmetic division of the total environmental unit expenses by the chosen utilization measure.

CHAPTER VII

FRAMEWORK FOR ANALYSIS: INCOME ANALYSIS

The primary classification of income in the typical accounting system of an institution is likely to be based on a mixed approach or perspective, partially one which refers to the classification of the individual or organization providing the income and partially one which refers to the function or organizational unit of the institution producing the services with which the income is identified. In this analytic framework a major objective in the analysis of income is to separate these two elements and provide a dual classification or identification of every item of income--one along each of these two dimensions.

The primary classification of income in this analytic framework is along the functional dimension--precisely paralleling the functional expenditure or expense classification previously presented. Any income which can be identified with a function (or category within a function, or environmental or support unit within a category) in any way is cast into that functional income classification; any income for which such functional identification cannot be established is given "General Institutional Income" as its primary classification. The secondary classification of income indicates the source or nature of the income and description of the individuals or organization which provide that income, e.g., gifts, state appropriations, endowment income, student fees, sales, rentals, etc. The comparison of the income identified with the function (or category or analytic unit) with the direct expenses identified with the function (or category or analytic unit) then in each case indicates the degree to which such attributable income has covered the amount of such direct expenditures. The remaining amount or difference then has been financed from "General Institutional Income" or other resources.

There are two general ways in which items of income become identified with a particular function:

1. They may be restricted to the function by the person or organization (outside the institution) providing the income, e.g., gift restricted by donor as to its use, special state appropriation limited by legislature to a specific purpose.

2. They may otherwise be produced or earned by an activity within the function, i.e., represent specific payment for services

rendered or goods sold, e.g., auxiliary income such as room rentals and food services sales; income from sale of crops, produce, animals from an agricultural experiment station; student health service fees; library fines; teaching hospital patient income; student fees for instruction.

Regardless of which of these avenues of identification applies, the item of income is to bear the functional designation (including any pertinent sub-functional designations) or the designation of General Institutional Income as its primary classification. The secondary classification, that of source, should also contain an indication of which of the above two avenues of identification was operative, except, of course, where the income bears the primary classification of General Institutional Income and has no single functional identity.

Exhibit 6 illustrates the application of this income classification scheme to a variety of income items at a hypothetical institution. The last column indicates that characteristic of the income that serves to identify the income item with the function and category.

As previously touched upon in Chapter IV, there has been a tendency in recent years for certain institutions to treat unrestricted income that is subsequently designated for non-current purposes or for specific current purposes as though it were restricted income. The institution, including its governing board, cannot change the nature of the income, however. Unrestricted income is general current fund income regardless of how it is spent, and it is to be invariably reflected as such in this analytic procedure. The use to which funds may be put cannot determine the characteristics of the income which provided the funds, and any device or treatment which indicates or implies that income is restricted, when such "restriction" arises solely from an administrative action of the board or officers of the institution, violates the cardinal principle of full disclosure in financial reporting and would certainly vitiate the interinstitutional comparison desired here. The administration may certainly transfer amounts from current funds to non-current funds and may certainly "designate" (budget) current funds for specific current purposes, and the results of these actions should be reflected in statements of the institution, but such actions do not change the nature of the income or place any restrictions or conditions on that income that were not present prior to the action.

Consistent application of the contrary position (that the designation of general funds converts them into restricted funds) applied to the annual budgeting process (a process of designation) would result in the fragmentation of the general fund into hundreds of restricted funds--one for each dollar line item of the budget--patently an absurdity.

EXHIBIT 6

ILLUSTRATION OF PRIMARY AND SECONDARY CLASSIFICATION OF INCOME

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
Instruction	Organized Teaching - DCC	Tuition Fees	Earned by the activity
Instruction	Organized Teaching - DCC	Endowment Income - Chair of History	Restricted by donor
Instruction	Organized Teaching - DCC	Sale of Art Supplies	Earned by the activity
Instruction	Organized Teaching - DCC	NDEA Training Grant - Biology	Restricted by donor
Instruction	Provision of Professional Training Facilities	Laboratory School Tuition	Earned by the activity
Instruction	Admissions	Application Fees	Earned by the activity
Instruction	Registration and Allied Activities	Transcript Charges	Earned by the activity
Research	Research Projects	Research Grant - Public Administration - USOE Project # 1853	Restricted by donor

EXHIBIT 6--Continued

Primary Classification Function	Primary Classification Category	Secondary Classification Source	Identification Mechanism
Research	Research Projects	Research Contract - Microbiology - NSF - Flagella Resuscitation	Restricted by donor
Research	Faculty Development Time	Wellington Fellow Abroad Gift	Restricted by donor
Research	Provision of Special Research Facilities	Bloomington Corporation Grant for Operation of Nuclear Reactor	Restricted by donor
Research	Provision of Special Research Facilities	Sale of Nuclear Reactor Time	Earned by the activity
Services to the Public	Organized Teaching - NCC	Technical Institute Fees	Earned by the activity
Services to the Public	Organized Teaching - NCC	Fees - Summer Short Course - Church Ushering	Earned by the activity
Services to the Public	Dissemination of Knowledge, Other	Federal Appropriation for Agricultural and Home Demonstration Extension	Restricted by donor
Services to the Public	Dissemination of Knowledge, Other	State Appropriation for Public School System Surveys	Restricted by donor

EXHIBIT 6--Continued

Primary Classification		Secondary Classification	
Function	Category	Source	Identification Mechanism
Services to the Public	Dissemination of Knowledge, Other	Survey Fees - Private Elementary and Secondary Schools	Earned by the activity
Services to the Public	Regulation and Inspection	Gasoline Testing Revenue	Earned by the activity
Services to the Academic Community	Student Development	Test Fees - Vocational Battery	Earned by the activity
Services to the Academic Community	Financial Aid	Scholarships - DuPont Special	Restricted by donor
Services to the Academic Community	Financial Aid	Hilton Prize - Excellence in Latin	Restricted by donor
Services to the Academic Community	Care, Subsistence, and Recreation	Housing - Dormitory Z Room Rentals	Earned by the activity
Services to the Academic Community	Care, Subsistence, and Recreation	Food Service - Cafeteria Sales - Waldorf Room	Earned by the activity
Services to the Academic Community	Care, Subsistence, and Recreation	Intercollegiate Athletics - Football - Games Away - Proceeds	Earned by the activity
General Support	Learning Resources	Library - Walker Memorial Endowment Income	Restricted by donor

EXHIBIT 6--Continued

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
General Support	Learning Resources	Library - Fines	Earned by the activity
General Support	Administration	AIA Gift for Long-Range Campus Planning	Restricted by donor
General Support	Promotion and Development	Alumni Association Dues	Earned by the activity
General Support	General Institutional Expense	Winn-Dixie President's Fund Endowment Income (for Official Entertainment)	Restricted by donor
General Institutional Income		Unrestricted Endowment Income - Walrath Foundation Fund	
General Institutional Income		Sale of Scrap and Surplus	
General Institutional Income		State Appropriation for General Operations	
General Institutional Income		Miscellaneous Small Unrestricted Bequests	

CHAPTER VIII

THE ANALYSIS OF EXPENSES FOR INSTRUCTION

The function of Instruction is the one direct service function which is common to all institutions of higher learning. Indeed, it is the *sine qua non* of a college or university. For purposes of this *analysis*, Instruction has been defined as the methodical imparting of knowledge, through an active process involving teachers and students, resulting in formal credit toward an academic degree. It is recognized that this is a limited definition, for analytic purposes, of a broad term. In an educational institution there are few activities that do not involve "instruction" in some form. For this reason some consideration was given to the abandonment of the term in this analytic procedure. "Instruction," however, has long been recognized as one of the major functions of an institution of higher learning and the word has long been frequently used in a limited sense. "Instruction," in many institutional functional classifications, refers to "campus instruction" or to activities being carried on by organizational units which are considered to be "instructional departments." Thus, in this analysis the term has been retained, but its limited use has been carefully defined.

The total function has been subdivided into five categories:

1. Organized Teaching of Degree-Credit Courses
2. Academic Counseling
3. Provision of Professional Training Facilities
4. Admissions
5. Registration and Allied Activities

Of these five, the Organized Teaching of Degree-Credit Courses is generally given the most attention since it includes the most extensive activity in the majority of colleges and universities and is the medium through which the direct service--the imparting of knowledge--is rendered to the consumer--the degree-credit student.

The analyses and procedures described in this chapter are intended to encompass all varieties of subject-matter instruction and all levels of instruction. This would include specifically that offered in such professional schools as those for medicine, law, engineering, dentistry, social work, veterinary medicine, nursing, etc.

An Economic Analysis of Organized Teaching

Before proceeding to the methods of analysis of Organized Teaching which are proposed in this study, it might be well to spend a little time considering the economic nature of the Organized Teaching process within an institution of higher learning. It will be remembered that the environmental unit for Organized Teaching has been identified as normally being the course, the course division, the section, or, in some cases, the individual student. The utilization factor for this environmental unit is the student registration.[1] For the larger unit, the course, an additional useful measure is the student course. Five of these phrases--course, course division, section, student registration, and student course--need precise definitions:

> A course is defined as an organized body of subject matter in which instruction is offered within a given period of time.
>
> Course divisions are defined as subdivisions of a course in which the same students are instructed through organizations with different characteristics. In a lecture-laboratory course, for example, the lecture would comprise one course division and the laboratory (or laboratories) another course division.
>
> Sections are defined as subdivisions of a course division in which instruction is offered in the same organized body of subject matter and through the same form of organization to separate groups of different students meeting at differing times and/or places within the same academic term.
>
> A student registration is defined as one enrollment by a student in one course division or section of a course division for one term. Registrations refer only to the number of enrollments, not to the individual person. One student may account for more than one registration.
>
> A student course is defined as one enrollment by a student in one course. Again, since a student may, and normally does, enroll in more than one course, one student may account for more than one student course.

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[1] Supra, p. 15.

The distinctions between these various terms should, perhaps, be elaborated upon. In the case of course, course division, and section, all courses meeting in group classes contain one or more course divisions. If a course division is made up of merely one section, it is referred to in this analysis as a single-section course division. If the course division has been divided into more than one section, it is referred to as a multi-section course division. In Exhibit 7 both the lecture and the laboratory divisions of Biology 435 and the lecture in Political Science 231 would be single-section course divisions. All others illustrated are multi-section course divisions.[2]

EXHIBIT 7

Course	Student Courses	Course Division	Student Registrations	Section	Student Registrations
Chemistry 101	134	Lecture	134	Section 1	70
				Section 2	64
		Laboratory	134	Section A	25
				Section B	28
				Section C	26
				Section D	28
				Section E	27
English 101	109	Lecture	109	Section 1	22
				Section 2	24
				Section 3	18
				Section 4	23
				Section 5	22
Physics 321	53	Laboratory	53	Section A	16
				Section B	12
				Section C	14
				Section D	11
Biology 435	18	Lecture	18	Section	18
		Laboratory	18	Section	18
Political Science 231	28	Lecture	28	Section	28

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[2] In some institutions different course divisions of the same subject matter are classified as different courses. Thus in

In the case of student registration and student course, it should be emphasized that the two terms are measuring different things and should always be kept separate. While student registrations in sections of a multi-section course division are additive to obtain total student registrations in the course division (see Chemistry 101, English 101, and Physics 321 in Exhibit 7), student registrations in course divisions are not additive to obtain student courses if the course contains more than one course division (Chemistry 101 and Biology 435). Both measures are necessary and useful. If it is desired to collect data on sizes of laboratory sections and sizes of lecture sections, it is necessary to have a figure for both the laboratory section and the lecture section of Biology 435. These figures are student registrations--18 in each case. When course sizes are to be examined, it is necessary to turn to the student course figure for Biology 435 which is also 18.

The cost of any particular section is determined by a combination of three factors:

1. The total compensation of the faculty member teaching the section (S).
2. The portion of the total load of the faculty member teaching the section which that particular section represents (T).
3. The expenses for Immediate Support assigned to that particular section (I).

Then:

$TS + I = C$ (direct cost for any environmental unit or section)

Since the entire environment of Organized Teaching of Degree-Credit Courses is made up of individual sections or environmental units, then:

$\Sigma C =$ direct cost of Organized Teaching for the institution

If the unit cost is desired, it is necessary to bring in the utilization factors or, in this case, the student registrations in that particular section (R). Then:

---

such an institution Biology 435 in Exhibit 7 might be treated as follows:

Biology 435	Lecture	Section
Biology 435-L	Laboratory	Section

$$\frac{TS + I}{R} = \text{direct unit cost for the section}$$

and

$$\frac{\Sigma C}{\Sigma R} = \text{average direct unit cost of Organized Teaching for the institution}$$

It should be noticed that the teaching load, the academic compensation, and the immediate support are interrelated to produce the cost of any one section. The number of student registrations does not substantially affect the total cost of any particular section. It affects only the unit cost. But the total teaching cost of the institution is the sum of the costs of all of the sections offered and, as will be seen, the number of student registrations does have an effect upon the number of sections offered.

Attention might be drawn here to the relational formula for studying cost variables which was cited in Seymour E. Harris' book Higher Education: Resources and Finance and further discussed by Thad Hungate and L. Richard Meeth in Cooperative Long-Range Planning in Liberal Arts Colleges.[3] In presenting this formula, certain of the definitions have been changed to suit the present analysis which uses sections as a measure of teaching load rather than teaching credit hours and courses as a measure of student load rather than student credit hours.

N = Total number of students (warm bodies)
L = Average section load per student per semester
F = Average full-time teaching load in sections
S = Average professional compensation per teacher
I = Sum of immediate support expenditures for all sections
C = Average section size

The elements of the formula are related in the following way:

1. Number of students (N) times semester student load in sections (L) equals total student registrations.

2. Average section size (C) times average number of sections taught by teachers (F) equals average student registrations taught by each teacher.

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[3] Seymour E. Harris, Higher Education: Resources and Finance (New York: McGraw-Hill Book Company, Inc., 1962) p. 519. Earl J. McGrath, Cooperative Long-Range Planning in Liberal Arts Colleges (Bureau of Publications, Teachers College, Columbia University, 1964), pp. 32-33.

3. Total student registrations divided by average student registrations per teacher equals the number of teachers.

4. Number of teachers times average academic year professional compensation of teacher (S) equals total teachers' salaries.

5. Total teachers' salaries plus total amount of Immediate Support for all sections (ΣI) equals the total direct cost of teaching.

6. Thus the formula reads:

$$\frac{NL}{CF}S + \Sigma I = \text{Direct Cost of Teaching}$$

> The formula serves the primary purpose of demonstrating how the variables are related to each other and directly to the cost of the educational program. It further shows how the administration can alter any one of these variables and by so doing, change the rest. For example, by raising class size or increasing teacher load the number of faculty will decrease thus allowing more funds to increase faculty salaries. Conversely, if the class size were reduced the costs would mount. . . .[4]

One difficulty with this formula, however, is that it tends to emphasize student registrations and average section size separately as if they were independent variables. In fact, they are not completely independent variables. Another view of the costs in higher education is given by the following relational formula which is slightly different in emphasis from that given previously:

S = Average academic compensation per full-time teacher
F = Average full-time teaching load in sections
Z = Number of sections offered
ΣI = Total expenditures for immediate support of all sections offered

Then:

$$Z\frac{S}{F} + \Sigma I = \text{Direct Organized Teaching Cost}$$

Actually, this is really another way of restating the previous formula of $TS + I = C$ and ΣC = direct teaching cost of the institution. The interesting thing about this approach is that it recognizes that the *number of sections* is the overwhelming determinant of the total direct teaching cost.

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[4] Ibid., p. 33.

The total number of sections offered is not solely dependent upon the number of students. If it were, there would be something approaching a linear relationship between numbers of students and direct teaching cost in higher education. As it is, this linear relationship does not exist, except in certain specialized cases. This is an important fact to keep in mind when approaching the finance of higher education since many financial actions appear to be taken under the erroneous impression that such a relationship does, in fact, exist.

The Determination of Number of Sections

The number of sections to be taught in any institution of higher learning is determined by three factors:

1. *Academic decisions upon course requirements for fields of study being offered or proposed to be offered by the institution.* These decisions do not necessarily have any relation to numbers of students except that there is a presumption that students will be interested in entering certain fields of study. Once this determination is made, the courses (with a minimum of one section for each) to be offered within that field are determined on the basis of expert professional opinion as to the types of offerings necessary to make a rounded program in the field. Once a decision is made to offer such a program, all of these courses must be offered, without regard to the number of students to be enrolled. Once the course or section is offered, the cost is incurred on the basis of the formula $TS + I = C$, again without relation to numbers of students. For example, if it were proposed to start a new liberal arts college and determined that the minimum offering for a four-year program in liberal arts would be encompassed in 150 different courses, the institution would then have to offer those courses. Thus a fixed cost for 150 courses with a minimum of 150 sections would be incurred (ΣC) without regard to the number of students enrolled. It might be determined that 150 sections could accommodate 1,100 students. However, the total expenditure would vary almost insignificantly whether the number of students was 300, 500, 800, or 1,100 since the 150 sections would invariably be required. This is the basic cost of the Organized Teaching program.[5]

2. *The number of student registrations.*

3. *The section size policies.*

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[5] John D. Millett, *Financing Higher Education in the United States* (New York: Columbia University Press, 1952), pp. 148-150.

Numbers 2 and 3 work together in influencing the number of sections. They become effective when the original number of single-section courses instituted to encompass the program offered by an institution is not sufficient to handle the numbers of students and it is necessary to change some of these single-section course divisions into multi-section course divisions. This decision is made in reference to the administrative policy on section sizes for the various courses. The cost of each additional section of a course division would be an incremental cost of Organized Teaching.[6]

Exhibit 8 gives a graphical illustration of the relationship that might exist between numbers of sections and student registrations at a hypothetical institution. Line A is concerned with the total students that could be accommodated in the numbers of sections actually offered. Line B portrays the actual number of student registrations in the institution. Increases in Line A are brought about by two different types of actions:

1. The addition of new courses to handle new or expanding programs.

2. The addition of new sections to existing courses to handle increased student enrollment.

The cost of the instructional program in the institution is determined by the cost of Line A. The tuition income of the institution is determined by the amount of tuition payment in relation to Line B.

To summarize, then, the direct cost of organized teaching in an institution of higher learning is equal to the sum of the costs of the individual environmental units or sections offered. Therefore, the number of sections is a major factor in the determination and projection of this cost. The number of sections is determined by the number of courses thought necessary to cover adequately the various fields of study being offered by the institution and the interaction of section size policies and student registrations to produce multiple sections in some of those course divisions.

The Process of Sectioning

The exact nature of this interaction deserves closer study if we are to understand exactly how numbers of sections in institutions of higher learning tend to increase. Most institutions have some sort of section size policy for each course, either positively stated or generally understood. In this analysis such

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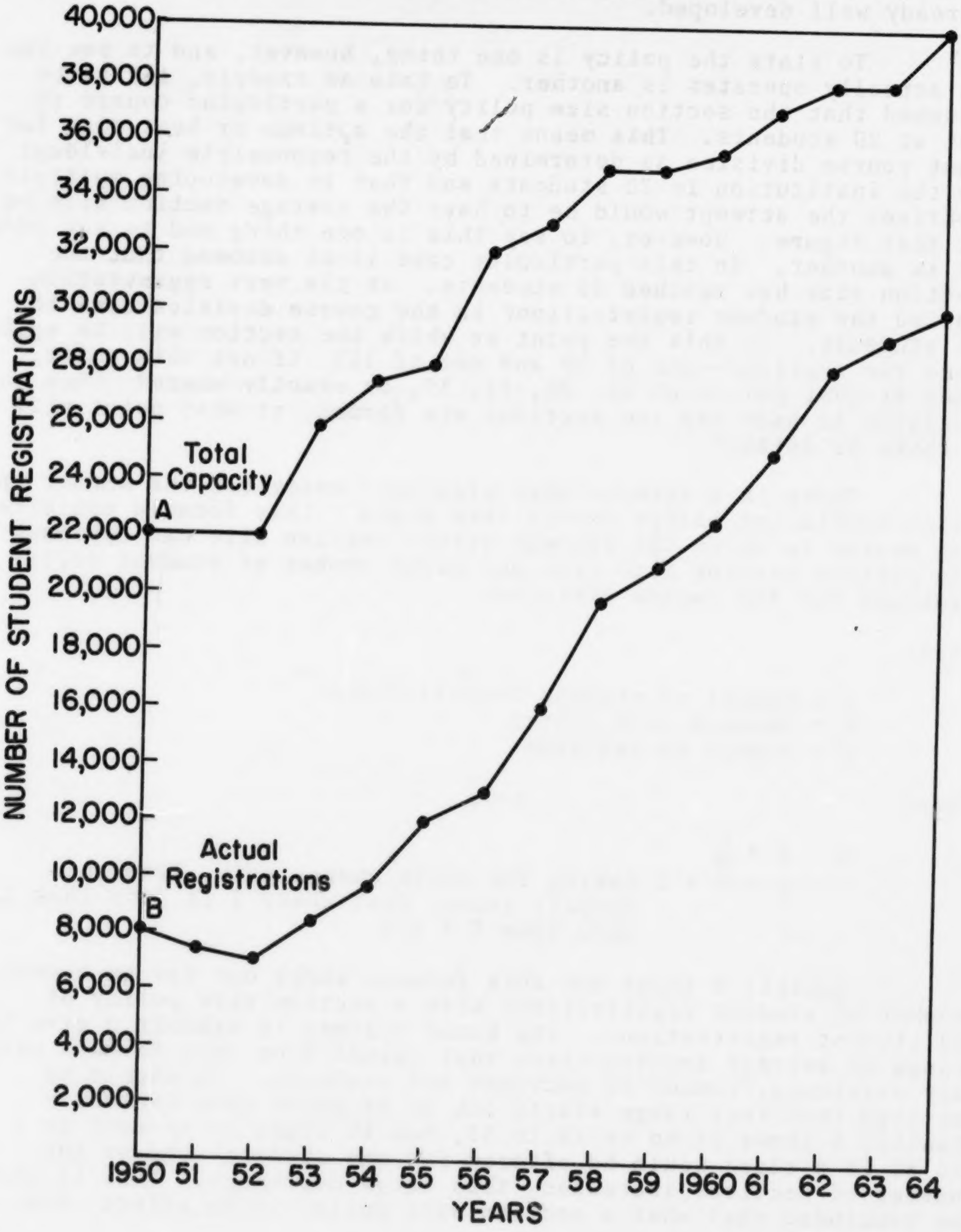
[6] Ibid.

EXHIBIT 8

RELATIONSHIP BETWEEN INSTITUTIONAL CAPACITY AND ACTUAL REGISTRATIONS



policies would be stated and recorded for all courses. Certainly, in course divisions where multiple-sections are actually already in existence or might be expected to rapidly develop, such as elementary courses in many fields, these section size policies are already well developed.

To state the policy is one thing, however, and to see how it actually operates is another. To take an example, let it be assumed that the section size policy for a particular course is set at 20 students. This means that the optimum or best size for that course division as determined by the responsible individual in the institution is 20 students and that in developing multiple sections the attempt would be to have the average section size be at that figure. However, to say this is one thing and to act upon it is another. In this particular case it is assumed that the section size has reached 20 students. At the next registration period the student registrations in the course division come to 21 students. Is this the point at which the section will be split into two sections--one of 10 and one of 11? If not this point, then at what point--at 24, 26, 28, 30, or exactly where? Once this decision is made and two sections are formed, at what point will a third be formed?

There is a formula that precisely describes the manner in which sectioning policy should take place. This formula maximizes the degree to which the average actual section size can approach the optimum section size with any given number of student registrations for the course division:

When:

S = Number of student registrations
C = Section size policy
Z = Number of sections

Then:

$$\frac{S - 1 + \frac{C}{2}}{C} = Z$$

(using the whole number only, from the result; except that where Z is less than 1, then make Z = 1.)

Exhibit 9 shows how this formula works out for an ascending number of student registrations with a section size policy of 20 student registrations. The boxed columns in Exhibit 9 give the range of average section sizes that result from this formula with any particular number of sections and students. It should be noticed that this range starts out to be quite wide (actually Exhibit 9 shows it to be 10 to 30, but it could be as much as 1 to 30 if a class would be offered for one student) and as the number of sections increases, this range decreases. Thus it can be concluded that when a section size policy is in effect, the

EXHIBIT 9

OPERATION OF FORMULA TO DETERMINE NUMBER OF SECTIONS IN MULTI-SECTION COURSE DIVISION

Formula: $$\frac{S - 1 + \frac{C}{Z}}{C} = Z$$ (whole number only, but not less than one)

Where: C (Section Size Policy) = 20

Number of Student (S) Registrations	Section Size Policy (C)	Result of Calculations (Z unmodified)	Number of Sections (Z)	Average Section Size High	Average Section Size Low
10	20	0.95	1		10
15	20	1.20	1		15
25	20	1.70	1		25
30	20	1.95	1	30	
31	20	2.00	2		15.5
50	20	2.95	2	25	
51	20	3.00	3		17.0
70	20	3.95	3	23.3	
71	20	4.00	4		17.8
90	20	4.95	4	22.5	
91	20	5.00	5		18.2
110	20	5.95	5	22.0	
111	20	6.00	6		18.5
130	20	6.95	6	21.7	
131	20	7.00	7		18.7
150	20	7.95	7	21.4	
151	20	8.00	8		18.9
170	20	8.95	8	21.3	
171	20	9.00	9		19.0
190	20	9.95	9	21.1	
191	20	10.00	10		19.1
210	20	10.95	10	21.0	

greater the number of sections the more likely it is that the average section size will actually be very close to that in the policy. If there is a very small number of sections the average section size may be either considerably above or considerably below the policy figure, even though the institution is actually adhering to the section-size policy.

It should be remembered here that one course may contain two or more different course divisions. For example, an elementary chemistry course may consist of a large lecture division, a multi-section quiz division, and a multi-section laboratory division. In such a case each type of division would have its own optimum section size and thus be subject to separate calculation under the sectioning formula.

Exhibit 10 is a graphical representation of Exhibit 9. It shows how, under such a policy, at any given time there is an excellent opportunity for either the under-utilization or over-utilization of the section in relation to the optimum size set in the policy. The effect of this, however, is considerably reduced as the number of sections increases.

This behavior of multiple sections has considerable implications for unit cost. Exhibit 11 shows the actual behavior of unit cost data in this regard. In this case, it has been assumed that the original section of the course pictured in Exhibit 10 carries a cost of $3,000 and that all of the subsequent sections carry exactly the same cost. Several things are important to note in Exhibit 11. The first of these is the tremendous reduction in unit cost as the first section is filled. Second is the swing effect of unit cost as new sections are created, gradually reach the optimum, pass the optimum, and finally reach the point where another section should be created. Third is the noticeable decrease in this "swing effect" as the number of sections increases.

1. For multi-section course divisions with a large number of sections, there tends to be a linear relationship between the number of student registrations and total direct costs, other cost factors held constant.

2. For single-section course divisions there is very little relationship between the number of student registrations and total direct costs of the section.[7] A significant relationship between registrations and costs begins to develop only as additional sections are added.

3. In most four-year institutions of higher learning the majority of the courses offered are single-section course divisions.

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[7] An increase in the number of student registrations in a single-section course division can increase the total direct costs thereof to some degree where either or both of the following conditions obtain:

(a) The amount of faculty time required, or assignment value, of the course division varies with the number of students registered because of the high significance of time required for reading or grading papers or individual consultation with students.

(b) The value of classroom or laboratory supplies or materials consumed by the individual student is of consequence.

EXHIBIT 10

RELATIONSHIP OF OPTIMUM NUMBER OF STUDENTS TO ACTUAL NUMBER OF STUDENTS

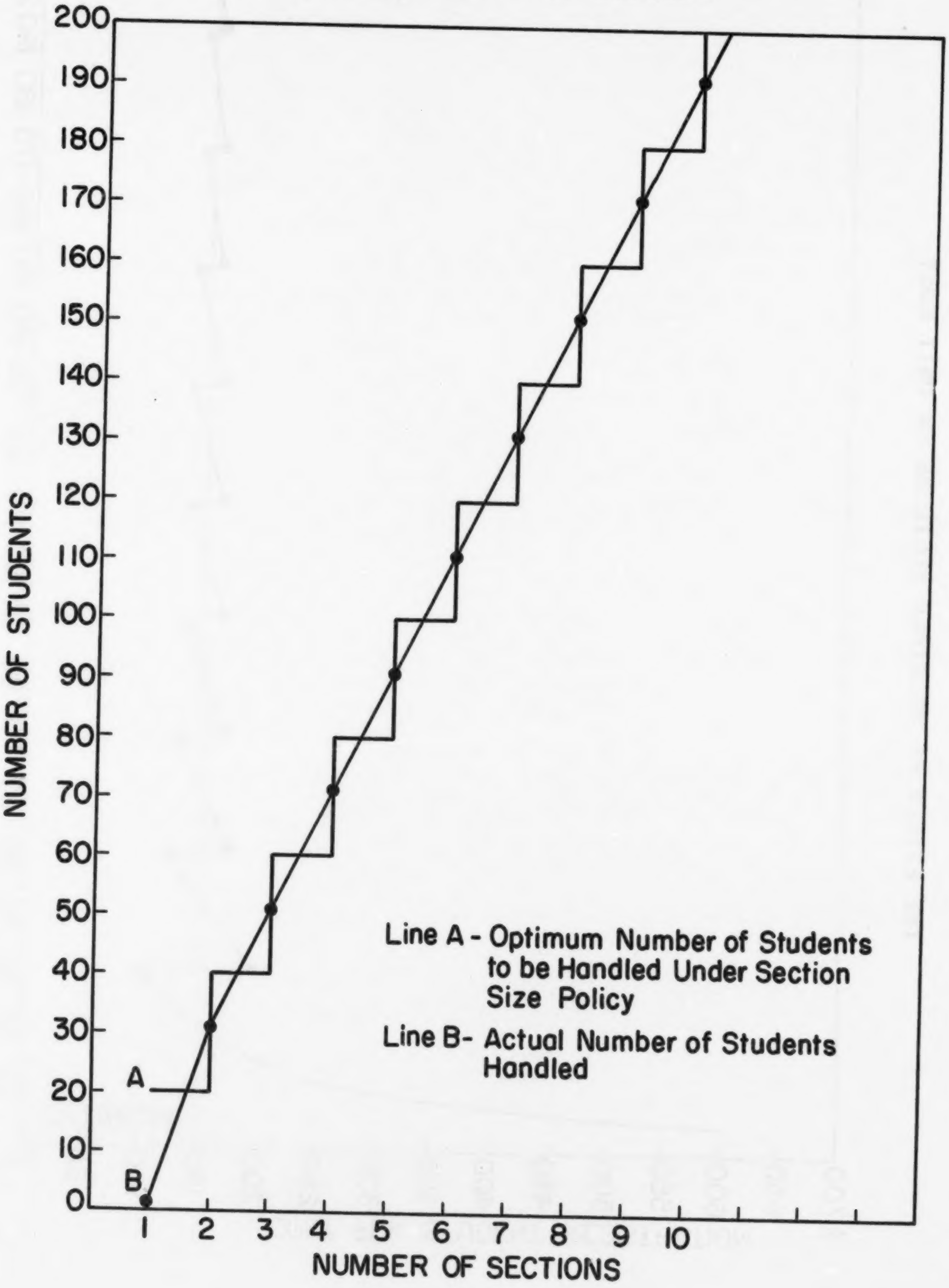
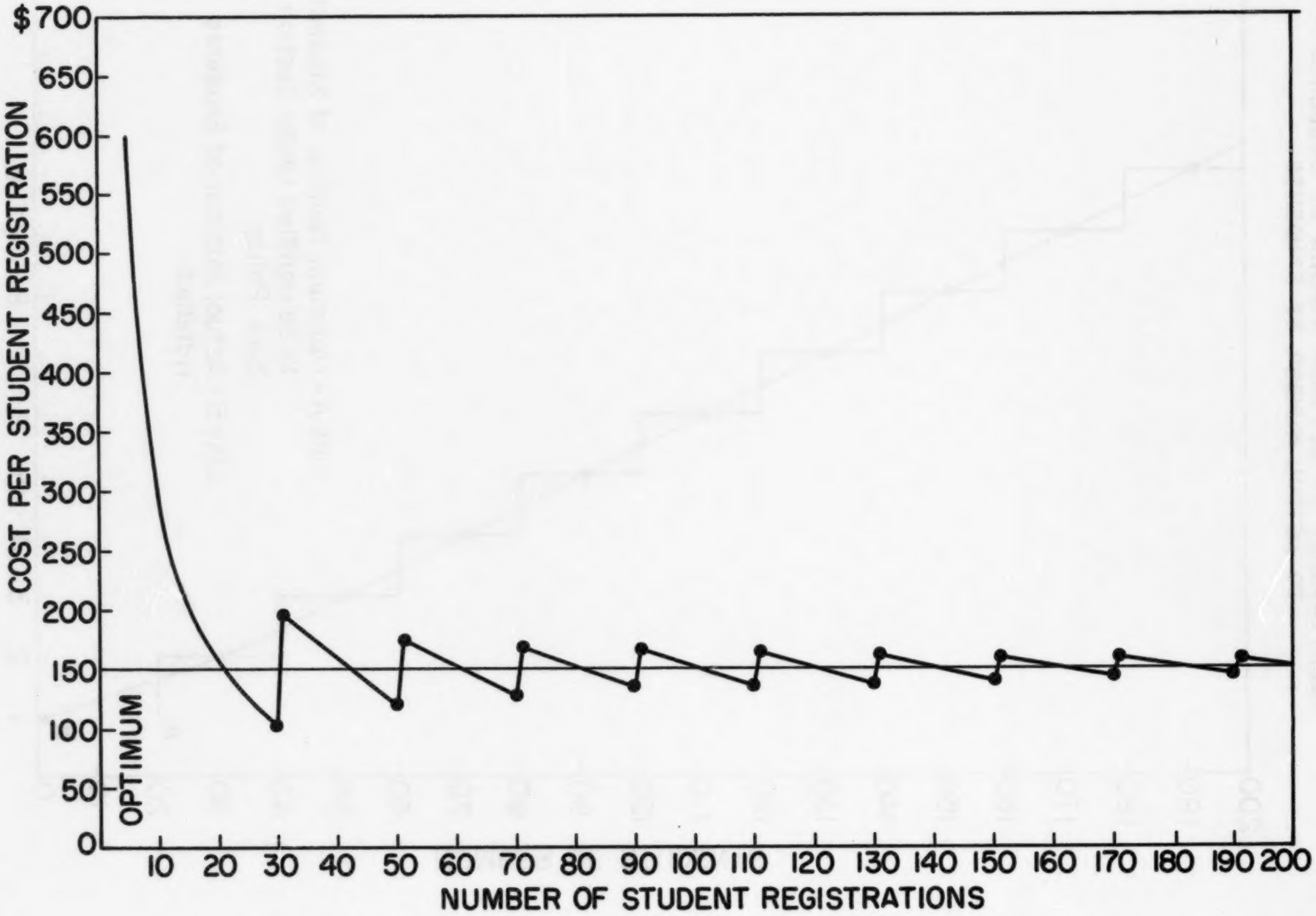


EXHIBIT 11

THE EFFECT OF MULTIPLE SECTIONS ON UNIT COST



4. Most of the multi-section course divisions in institutions of higher learning are lower division courses. Often as high as seventy to eighty-five per cent of upper division and graduate courses will be single-section course divisions, a substantial proportion of which have excess capacity.

5. It follows, therefore, that many institutions of higher learning can reduce the unit costs of upper division and graduate instruction by the addition of students at these levels who will fill the single-section course divisions that hitherto had excess capacity. This cannot be done with the addition of lower division students. This fact has significant implications for the current development of community or junior colleges in connection with a system of higher education.

There are strong indications that the differences in numbers of multi-section course divisions between the lower division level and the upper division level in most colleges and universities account for the major portion of the difference in section size (and usually in unit costs) that is evidenced when institutions are analyzed by level of course offering. Note the following examples drawn from two institutions:

Average Section Size

	Single-Section Course Divisions	Multi-Section Course Divisions	All Courses
Institution A			
Lower Division	22.3	34.2	32.8
Upper Division	17.3	33.9	26.5
Total	18.8	34.1	30.3
Institution B			
Lower Division	21.5	28.3	26.9
Upper Division	16.2	24.2	18.2
Total	17.0	27.5	22.7

What has actually been constructed here is a cost curve for an individual course in an institution. Similar curves could be constructed for a group of courses, for a teaching program, or for the entire institution. It is important that this be done, both in analyzing the projected costs within an institution and in comparing future costs between two or more institutions.

A particular unit cost, such as the cost per student registration, represents only a point on a curve at a particular time. If the entire curve is not known, misleading conclusions can be drawn from the unit cost figures. Exhibit 12 shows cost curves for three hypothetical institutions. The point marked with an X on each of the curves represents the unit cost in the particular time period under analysis. It can be seen that in this case the unit cost is exactly the same for all three institutions, $300 per student registration. If this particular item of comparative data were viewed alone, the conclusion might be drawn that all three institutions were operating at about the same level and were in the same relative position in terms of maximum utilization of the resources at hand. When these points are seen in relation to the curves for each of the institutions, an entirely different picture results. Institution "A" is operating at a maximum point of utilization of resources. The addition of any more students at Institution "A" will cause a sharp increase in unit costs. Institution "B" would have been led into a false complacency if it were to judge its performance solely on comparative unit cost figures with Institutions "A" and "C". The utilization of resources in Institution "B" is far from the maximum. Indeed, it can add close to 2,000 more student registrations before unit costs would start to rise. Institution "C", on the other hand, has already passed its point of maximum efficiency.

This illustration emphasizes the pitfalls inherent in the use of interinstitutional unit cost data as the sole measure of comparison of operations between institutions. Such data are valuable landmarks which become useful only when viewed in relation to an intensive analysis of the entire operation of the institutions being compared.

The Projection of the Cost of New Programs

An understanding of the fact that, other factors being equal, increases in the cost of higher education are connected with the creation of new sections, either because new courses are added or because multiple sections of existing courses are created, gives some clues to the answer to one of the most pressing problems in higher education today--the calculation of the costs of new programs or curricula.

By way of illustration, let it be supposed that Department A is proposing a new program leading to the master's degree. The first step in the determination of the cost of this program in, say, its first academic year, is to find out what courses the students in the new program will be taking--either because they will be required or strongly recommended by counselors. Exhibit 13 illustrates exactly how this calculation works. It was determined, in this hypothetical example, that students in the new program would take three new courses to be established--A-501, A-503, and

EXHIBIT 12

COMPARATIVE COST CURVES FOR THREE HYPOTHETICAL INSTITUTIONS

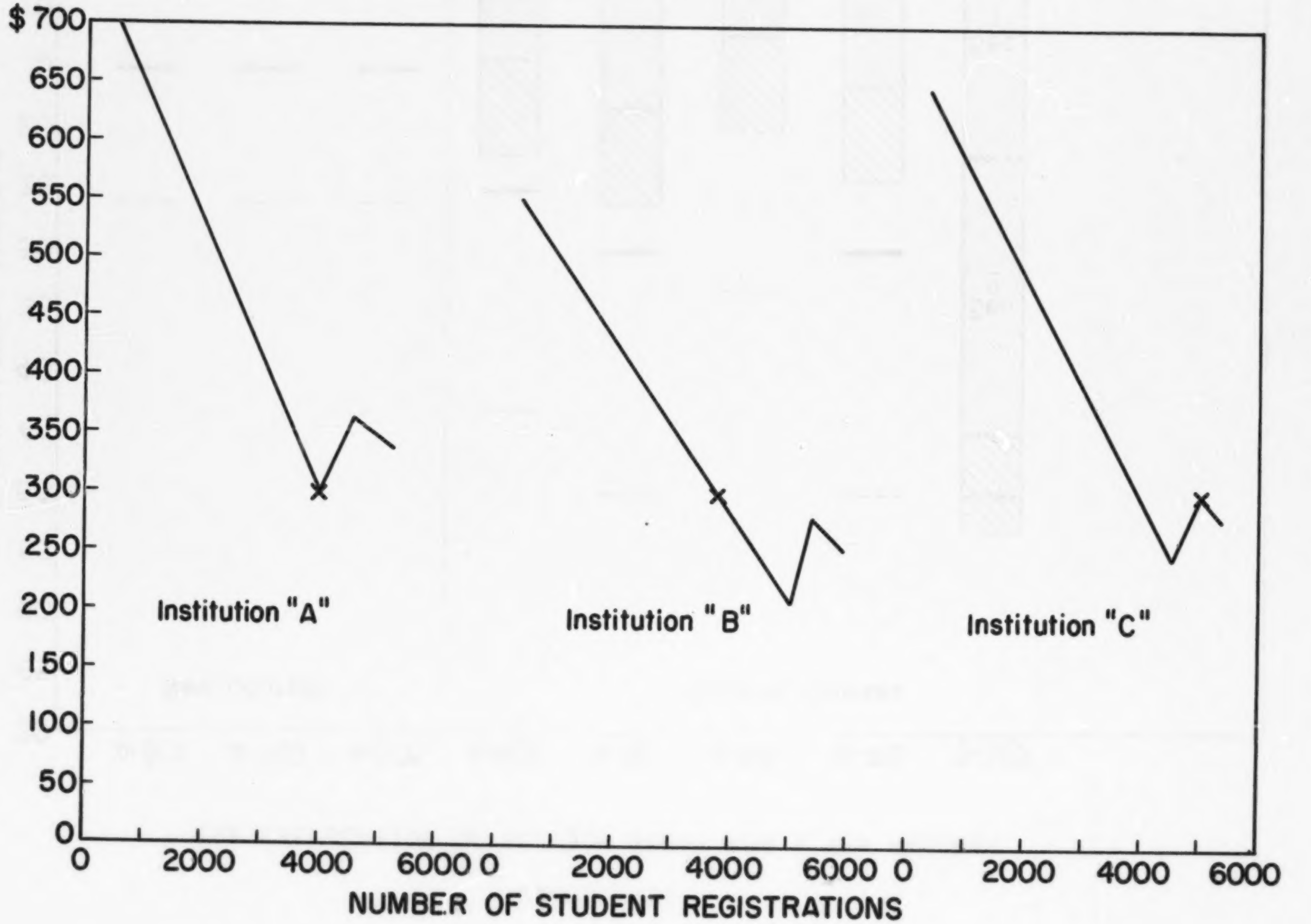
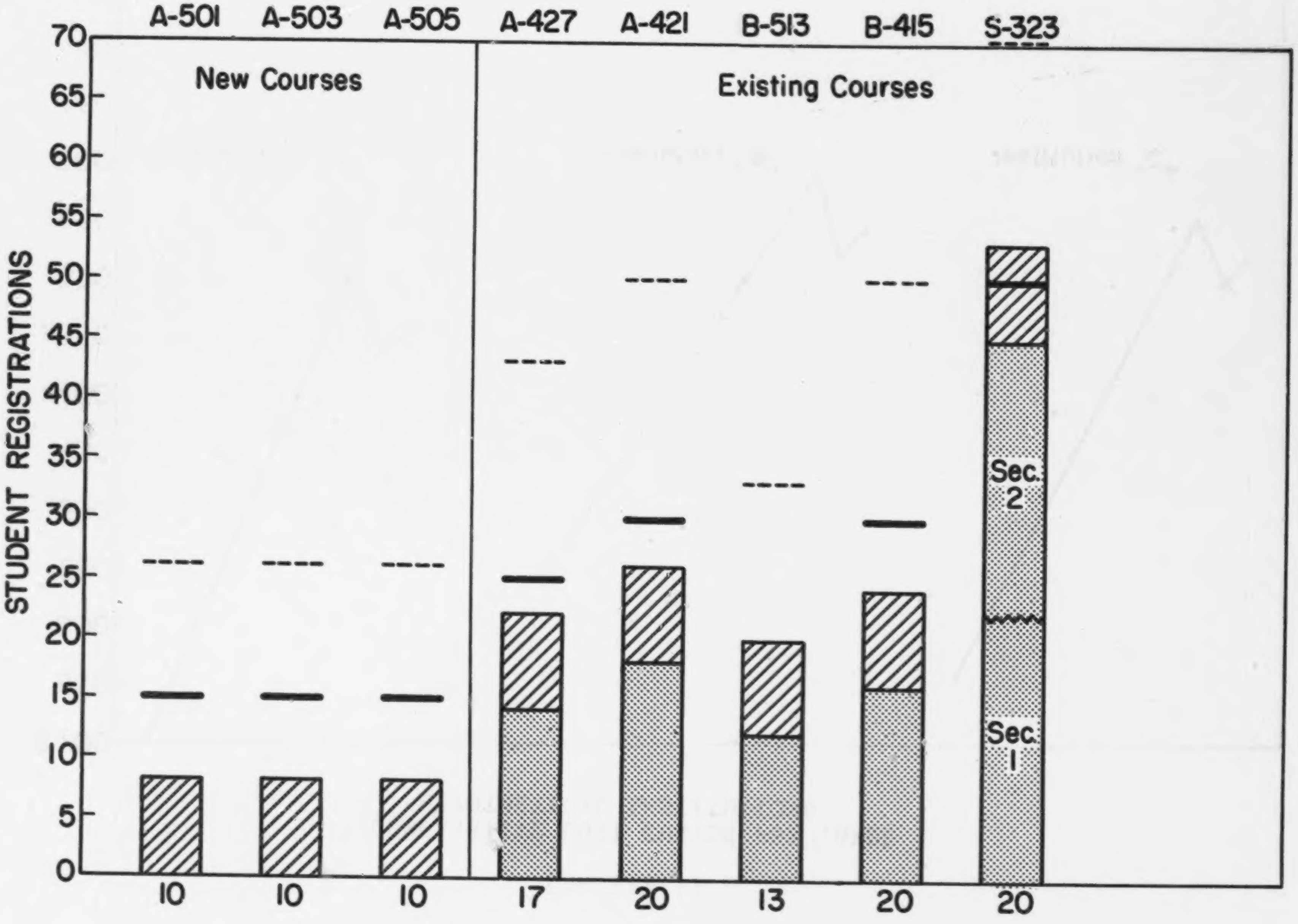


EXHIBIT 13

THE CALCULATION OF SECTION NEEDS FOR A NEW PROGRAM



A-505--and five existing courses--A-427, A-421, B-513, B-415, and S-323. It will be noted that the last three courses are in departments other than Department A.

It now becomes necessary to examine these existing courses and determine for each of them:

1. The optimum section size for each of the courses (denoted by the figures at the bottom of each column of the graph).

2. The break point under the formula $(S - 1 + .5C) \div C = Z$ at which point a new section would actually be formed (represented by the solid black line in each of the columns for each of the courses) and the new break point which would come into being after a new section was formed (represented by the dotted line in each column).

3. The anticipated enrollment in those courses without the addition of any new students under the new program (indicated by the shaded portions of the bar graphs in each column).

Optimum section sizes and break points for the three new courses would also be determined and these are likewise shown in Exhibit 13 for each of those courses.

The next estimate is to determine how many students are to be expected in the next academic year in the new program. These would be new students who would not otherwise be enrolled in the institution. In this case the number is set at eight new students. The students then are added on to each of the existing courses as shown in Exhibit 13 by the diagonally hatched additions to the bar graph. Of course, new sections or courses will have to be created for the three new courses A-501, A-503, and A-505. These will represent an increase in cost to the institution. In the case of the existing courses, however, four of the courses can accommodate the new students without the creation of any additional section. In this case there would be no increase in cost for the institution for the addition of these students or the new program as far as these courses were concerned. Indeed, as will be seen, the effect would merely be to lower the unit cost by increasing the utilization of these four courses. In the case of the fifth course, S-323, the addition of the eight students takes the course registration over the break point and a third section would have to be formed. Formation of this new section would also be a positive cost increase to the institution.

Exhibit 14 shows the dollar calculations based on Exhibit 13 which arrive at the cost of the new program. The dollar figures shown represent the hypothetical cost of each section as calculated by the formula $TS + I = C$. Thus, for this calculation, the actual marginal cost to the institution for the addition of the new program would be \$9,300. However, the average unit cost of the new program would be \$184.75 per student registration and thus the teaching

EXHIBIT 14

THE ESTIMATE OF COST FOR THE NEW PROGRAM IN EXHIBIT 13

Course	Original Teaching Cost	Additional Cost for New Program	Old Unit Cost (Per Student Registration)		New Unit Cost (Per Student Registration)		
New:							
A-501	$ ---	$2,500	$---		$313	average $313	average $184.75
A-503	---	2,500	---		313		
A-505	---	2,500	---		313		
Existing:							
A-427	2,300	---	164	average $130	105	average $106	
A-421	2,400	---	133		92		
B-513	2,800	---	233		140		
B-415	2,400	---	150		100		
S-323 -			80		102		
Sec. 1	1,800	---					
Sec. 2	1,800	---					
Sec. 3	---	1,800					
Additional Cost for New Program		$9,300					

Allocated Cost for New Program
$184.75 x 64 = $11,624

cost which should be allocated to that program would total $11,824 for the 64 student registrations. Other interesting statistics are the fact that the present unit cost for the five existing courses is $130 per student registration. The new unit cost for the five previously existing courses, after the addition of the new program, would drop to $106 per student registration. However, the new unit cost for the three new courses would be $313 per student registration.

The Interaction of Number of Sections, Teaching Load, and Academic Compensation

This rather lengthy discussion of sectioning does not mean to underestimate the role of teaching load and academic compensation in the cost of organized teaching. The behavior of section policy is, however, probably the least understood. As the formula $Z(S \div F) + \sum I = DOTC$ would indicate, number of sections, teaching load, and academic compensation are of equal importance in the determination of teaching cost. Teaching load, in this case, must be expressed in number of sections taught.

To understand what has happened or what may happen to the cost of organized teaching, these three factors must be viewed together and their interaction understood. Either a large number of sections or low teaching loads or high salaries can produce high teaching costs. When all three of these are found in combination, they produce very high teaching costs. Similarly, a small number of courses and sections, high teaching loads, and low salaries produce very low teaching costs. Variations up or down in these factors when taken in combination can offset one another. Thus a low teaching load, which would be costly, can be offset by a reduction in number of courses or sections. High salaries, which, other things being equal, should lead to higher costs, can be offset by a reduction in number of courses or sections, by higher teaching loads, or a combination of both. Small class sizes may be important indicators of a proliferation of courses or of a poor sectioning policy or both. However, small class sizes may indicate only an underutilization that is related only to low enrollment generally or to the "swing effect" of sectioning shown in Exhibit 11.

The Analysis of Expenses for Organized Teaching

Once it is understood what the cost elements in Organized Teaching are and how these elements operate and interact to produce costs, it is possible to come to some decision as to how this process can best be analyzed so as to produce the most meaningful measures of that cost and its elements to those responsible for the administration of higher education.

It may be remembered that Organized Teaching of Degree-Credit Courses was defined as "an analytic category, within the function of Instruction, of environmental units providing instruction of students in organized courses offered for credit or advancement towards an academic degree or designed to enable students to qualify for such courses, including any and all formal arrangements and assignments for contact between teachers and students for such instructional purposes." It should be noted that it is the nature or characteristic of the course that is the criterion for including the environmental unit here, not the characteristics of the students that may happen to be taking the course at any given time. Even though some (or conceivably all) of the students in the course may not be seeking a degree, or even credit for the course, the very fact that the course is one which can be taken for credit or advancement toward a degree qualifies it as an environmental unit in the category Organized Teaching of Degree-Credit Courses. It should be noted, too, that advancement toward a degree is equated with "credit" in both of these situations: (1) where an institution does not grant formal credit at all and (2) where an institution does grant formal credit for some courses, yet requires for a degree, or counts in some way towards a degree, certain courses and/or activities for which formal numerical credit is not recorded, e.g., thesis or dissertation writing.

The cost center for Organized Teaching may be the course, the course division, or the section, depending upon whether or not the course has more than one division, section, or a combination of both or, in the case of certain types of course organization, the individual student or a group of students.[8] It is here that the contact between the student and the teacher takes place and the direct resources are, therefore, actually applied. The total cost of teaching for any institution depends upon the number of these centers provided by the institution and the cost of each of them. For these reasons, the course, the course division, the section, or the student, as the case may be, serves as the basic environmental unit in the analysis of Organized Teaching.

The first step is to identify with each unit the information necessary to completely describe that unit. This information falls into three classifications:

1. Information designed to identify and classify the unit in certain ways for the purposes of further analytic treatment.

2. Information designed to identify and measure the resources of the institution devoted to that unit.

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[8] One Teacher-One Student Relationships, *infra*, pp. 100-101, 109.

3. Information designed to identify and measure the utilization of the unit and its resources.

Definition of Terms

The type of information to be collected concerning the environmental unit under each one of these classifications is summarized in Exhibit 15. It is important that each of these pieces of information be carefully delineated or defined.

I. Information Designed to Identify and Classify the Unit.

The information which is designed to identify and classify the environmental unit (I. in Exhibit 15) is classified under two major headings--Institutional Designation and General Classifications. Under Institutional Designation are placed those items of information which are used to identify the particular environmental unit being described within the institution concerned. For example, each institution has its own course titling and numbering system, its own college and departmental organization, its own academic periods, and its own credit valuation of courses. Thus, the items included under Institutional Designation are primarily of value for intrainstitutional identification and analysis and of little value for interinstitutional analysis purposes.

The unit designation refers, therefore, to the peculiar identification given to this particular environmental unit by the institution of which it is a part. This would always include some sort of a course identification--generally the course title and course number unless some other means of course identification is used. Course division and section identifications would be necessary only in the case of multi-division and/or multi-section courses. The terms "course," "course division," and "section" are used here in the same sense as defined earlier in this chapter.[9]

In some cases, such as in certain language laboratories, two or more courses meet in the same room at the same time under the same instructor. Each such course would constitute a separate environmental unit under this analysis. However, in examining class sizes and the utilization of space, the fact of this joint meeting should be known. The second classification of joint course division meetings is used for this purpose. If a course has another course with which joint meetings are held, the joint course should be specified under this classification, thus alerting the analyst to this organizational peculiarity.

The third and fourth items of information are concerned with the organizational units administering the particular course

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[9] *Supra*, p. 74.

EXHIBIT 15

BASIC INFORMATION FOR ENVIRONMENTAL UNITS IN ORGANIZED TEACHING

I. Information Designed to Identify and Classify the Unit

- A. Institutional Designation
  1. Unit designation
  2. Joint course division meetings
  3. First level (lowest) organizational unit
  4. Second level organizational unit
  5. Location
  6. Term
  7. Number of credits
  8. Number of contact periods per week and length of those periods
  9. Number of term hours
- B. General Classifications
  1. Characteristic of course (or course equivalent) organization (one or a combination of two or more of the following)
     - a. Group instruction
       - (1) Lecture
       - (2) Seminar, discussion, or quiz
       - (3) Laboratory
       - (4) Other instructional arrangements for groups
     - b. One teacher-one student relationships
       - (1) Independent study
       - (2) Supervision of graduate candidacies
     - c. Experience courses or programs
     - d. Correspondence study
  2. Characteristic of course division organization
     - a. Lecture
     - b. Seminar, discussion, or quiz
     - c. Laboratory
     - d. Other instructional arrangements for groups
  3. Subject matter
  4. Level of instruction
     - a. Undergraduate
     - b. Graduate (and in case of graduate candidacy, identify whether master's or doctoral candidacy)
     - c. Graduate and advanced undergraduate

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

- A. Evaluation of Unit as Portion of Full-Time Academic Load
- B. Name of Teacher or Teachers

EXHIBIT 15--Continued

- C. Rank of Teacher or Teachers
- D. Total Academic Compensation (Full-Time Rate) for Term
- E. Direct Academic Compensation Allocated to This Unit (A x D)
- F. Immediate Support Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

- A. Optimum Size in Student Registrations under Established Institutional Policy
- B. Number of Student Registrations
- C. Enumeration of Student Registrations by Combination of the Following Classifications
  - 1. Degree sought
  - 2. Field of study
  - 3. Progress category
  - 4. Course load

which this environmental unit represents. These would generally be the teaching department and the college or school within which that department is located. In case some other organizational pattern is used in the institution, the corresponding first (lowest) and second level organizational units should be identified here and, in the event that there is a third level of organizational unit, it should also be identified.

The next two items, Location and Term, need little elaboration. The identification of the location at which each particular teaching environmental unit was actually in operation enables analyses to be made of each of these locations separately. Thus courses taught on the main campus are not confused with courses in the evening college or those taught through the general extension division, either at a center or in separate locations away from the campus. The term refers to the instructional academic period in which this particular unit occurs.

The seventh item of information about the environmental unit is concerned with the valuation given to that unit and to the course of which it is a part by the institution itself. A credit is defined as the award to be granted for completing a course, usually described in semester, term, or quarter hours. In all cases there should be recorded the total number of credits given for the course by the institution. If the unit represents a course division of a multi-division course, there may be a separate credit valuation for each of the divisions. If the institution makes such a separate valuation of credit, the amount of credit for the course division represented by this unit should also be recorded. This refers only to institutions where actual valuations for course divisions are given. If it would be necessary for the analyst to estimate the value of the course division to obtain such a figure, this should not be done, and no credit should be recorded other than that of the entire course.

The last two items of information are concerned with a measurement of the actual amount of contact between the student or students and the teacher which each particular environmental unit represents. The first of these is in terms of the number and length of contact periods per week in which this particular unit and the course of which it is a part meet. If the course does not represent a group class, there would be no contact periods. The contact period is defined as representing that particular institution's standard organized class period or periods, whatever lengths they may be. Again here should be shown both the number and length of contact periods per week for the course and, in the case of a multi-division course, the number and length of contact periods per week for each course division.

The last item of information under the classification of Institutional Designation concerns the number of hours for the entire term which this environmental unit and the course of which it is a part represent. A term hour is defined as 60 minutes elapsed time of instructional contact between the student or students and the teacher, either in a formally organized class or in other organized meetings, consultations, or discussions. Thus a class meeting for three 50-minute periods each week for the fifteen weeks of a semester would account for 37.5 term hours; e.g., 3 x 50 x 15 ÷ 60. The term will represent the academic teaching period of the institution as noted in Item 6 of this classification. This measure (term hour) would apply solely to group classes. It eliminates institutional diversities in two dimensions--the differing lengths of contact periods within the institutions and the differing types and lengths of academic terms. Again this should be shown for the course in all cases and, in the case of a multi-division course, for the course division represented by the particular environmental unit.[10]

The second heading under information which is designed to identify and classify the environmental unit is that of General Classifications (B. in Exhibit 15). Under this heading are found various classifications of the environmental unit in accordance with universal definitions to which all institutions would be expected to adhere. Being thus defined, these terms would be a part of the universal language of higher education, and units classified in a certain manner at one institution would be susceptible of comparison to units similarly classified in another institution. The first general classification is by characteristic of course organization. There are four major classifications of teaching unit organization:

a. Group Instruction.--A form of course organization characterized by an identifiable group of students studying a common course subject matter. There are four forms of group instruction:

(1) Lecture.--A form of group instruction wherein the group meets together at the same time and place and both the direction of the class and the presentation of the subject matter are the sole responsibility of the teacher. While active student participation may be sought,

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[10] It will be noted that this analysis eliminates the use of the word "hour" except in reference to actual clock time. It is felt that the more traditional use of the word "hour" in referring to measures and periods which are not actually 60 minutes in length has led to considerable confusion in institutional analysis. Thus, as the word "hour" is currently used in higher education, the question is always raised as to whether "credit hours" or "class hours" (sometimes phrased "contact hours") are the unit to which reference is made. In neither case is the reference concerned with a 60-minute period. Thus, this analysis proposes to substitute "credit" for "credit hour" and "contact period" for "class hour" or "contact hour" and reserve the term "hour" for a measure of actual time.

it is not considered to be an absolute requirement for the successful conduct of the class.

(2) Seminar, discussion, or quiz.--A form of group instruction wherein the group meets together at the same time and place and both the direction of the class and the presentation of the subject matter constitute a responsibility that is shared jointly by the teacher and the students. Active student participation is considered to be an absolute requirement for the successful conduct of the class.

(3) Laboratory.--A form of group instruction wherein the group meets together at the same time and place to actively work on practical problems illustrative of or arising from the course subject matter under the supervision of teaching personnel but with maximum emphasis on student participation and investigation. While the laboratory form of group instruction often involves special physical facilities, this is not an absolute requirement.

(4) Other Instructional Arrangements for Groups.--A form of group instruction wherein the group does not meet together at the same time and place but where a common course subject matter is studied by individual members of the group acting separately but under common direction such as might be supplied by common syllabi or the use of some learning resource such as programmed instruction or television, or a group instructional arrangement which does not conform to normal institutional periods and times such as a short-term institute, conference, or workshop.

(Since a course may consist of various combinations of different types of group instruction such as a lecture with separate quiz sections or a lecture with separate laboratory sections, the elements of the combination making up the course of which a particular environmental unit is a part should all be identified here. The actual element which this particular environmental unit represents will be identified later under Characteristic of Course Division Organization.)

b. One Teacher-One Student Relationships.--A form of course organization characterized by an individual student working and actually coming in contact directly with an individual teacher or teachers on a course subject matter or subdivision of subject matter which is peculiar to that particular student. There are two subclassifications of one teacher-one student relationships:

(1) Independent Study.--All one teacher-one student relationships, both graduate and undergraduate, which carry a definite course identification except for graduate candidacies as defined herein.

(2) Supervision of Graduate Candidacies.--The primary responsibility (major professor or committee chairman) for those elements of graduate degree candidacies which are normally supervised by a graduate committee (preliminary examination, thesis or dissertation, final examination) whether informally recorded by student course registration or not.

c. Experience Courses or Programs.--A form of teaching unit organization characterized by the carrying on of the instructional process through the medium of apprenticeship or training of the student in the practical working situation of his field or profession. While the students registered in such a course may be identified as a group, the instructional process is normally a separate, individual experience for each student which may be carried on at different times and different places for members of the same group. Examples are practice teaching, engineering internship, clinical experience, playground supervision.

d. Correspondence Study.--A form of course organization characterized by an individual student working directly with an individual teacher entirely through the medium of written correspondence with no actual face-to-face contact between the student and the teacher required.

The second general classification is that of Characteristic of Course Division Organization. This would be required only if the teaching unit was a course consisting of more than one course division. In such a case it would be necessary to identify the course division represented by a particular environmental unit being classified and to classify that course division (which would always be a form of group instruction) as being either a lecture; seminar, discussion, quiz; laboratory; or other instructional arrangement or groups.

The third general classification of the environmental unit is by Subject Matter being taught in the unit. At first glance, it might be assumed that this classification would be identical with that of Department which was made previously as an institutional designation. Unfortunately, such is not always the case. In many institutions the same subject matter is taught in several different departments and between institutions, with varying departmental organizations, identical subject matters are often taught in different departments and, indeed, even in different colleges. Ideally, this calls for a universal classification of subject matter in which all course offerings of all institutions might be classified. However, the development of such a universally applicable subject matter classification for all the knowledge of mankind would involve a major undertaking in itself if it were to have any chance of general acceptability, and this has not been attempted here. Therefore, each institution must apply its own subject matter categorization scheme or design and identify each course as to subject matter (or joint subject matters if such is the case, e.g., psychology-statistics) within that perspective, regardless of the department carrying on the instruction.

The fourth general classification is concerned with Level of Instruction. Level of Instruction is defined as a classification of course offerings as to the primary purpose of each course in relation to the classification of students for which it was primarily designed. There are three classifications under Level of Instruction:

a. Undergraduate.--Courses which are designed primarily for students pursuing Bachelor's Degrees and/or students pursuing First-Professional Degrees, as defined in Exhibit A of the Appendix (and discussed subsequently in this chapter in connection with "classification of students").

b. Graduate.--Courses which are designed primarily for students pursuing Master's Degrees and/or students pursuing the Doctorate, as defined in Exhibit A of the Appendix (and discussed subsequently in this chapter in connection with "classification of students").

c. Graduate and Advanced Undergraduate.--Courses which are designed to meet the needs equally of the two groups of students described in (a) and (b) above.

A teaching unit which is classified as Supervision of Graduate Candidacy would obviously be at the graduate level of instruction. Each such unit would carry an additional identification to indicate whether the supervision in that unit is concerned with a master's or with a doctoral candidacy.

Although some institutions are able to further classify their undergraduate course offerings into Lower Division and Upper Division categories, other institutions have no basis for so doing; therefore, such a categorization cannot be here included as a part of the standard classification to be applied to all types of institutions. This, of course, is not to prohibit the intrainstitutional use of such categories as they prove useful to the individual institutions able to make the discrimination.

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit.

The various items of information included under this general classification are concerned either with terms which are held more or less in common among institutions of higher learning and thus do not require particular definitions, or terms which have been defined in detail in Chapter VI.

A. Evaluation of Unit as Portion of Full-Time Academic Load.

A full-time academic load is defined as the total workload which would be expected of and assigned to a full-time academic staff member during the term in question. As will be seen later, the information required here expresses what portion of such a full-time academic load would be represented by this particular unit in any assignment. This portion would be expressed in terms of a percentage. Thus, the unit being evaluated might represent 25 per cent or 50 per cent of a full-time academic load depending on the policy of the institution. Since the unit is a teaching unit, this percentage would also reflect the proportion of a full-time-equivalent teacher required to handle this unit. A full-time teacher would be an academic staff member who devotes his entire time to teaching. In many institutions of higher learning, especially the larger ones, few faculty members devote full time to teaching only. Rather, their time is split between two or more functions. The percentage or decimal portion of their assignment which is devoted to teaching (determined by the unit evaluation of their teaching responsibilities) represents the full-time teaching equivalency of that particular staff member or the portion of a full-time-equivalent teacher which he is.

The next two items of information (B and C) are again types of institutional designations which are defined by the institution itself. The name of the teacher is, of course, a matter of institutional record. The rank of the teacher is listed according to the institution's own system of rank designation. It should be emphasized here, however, that if the teacher is a degree-seeking student in the institution, this should be clearly delineated.

Total Academic Compensation and Immediate Support have been defined and discussed in detail in Chapter VI.[11] It should be stressed that the total academic compensation of the teacher or teachers assigned to the unit listed under Item D is concerned with the full-time rate for the term under analysis. Although the teacher may be only a part-time employee, his academic compensation rate would be expressed as that of a full-time employee. Likewise, it should be expressed as the full-time rate for that term only rather than the entire academic period. If this is not done, the calculation of the professional compensation allocated to the unit under analysis under Item E (A x D) will result in a faulty answer.

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[11] *Supra*, pp. 60-66.

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources.

Optimum size is defined as the number of student registrations determined to be the most desirable for instructional purposes in any particular course division. A student registration is defined as one enrollment by a student in one course division or section of a course division for one term.[12] (Where a course offering is not necessarily coextensive with the regular term of the institution, as is often the case with Correspondence Study, a student registration is to be counted anew for each such term over which the course extends or partially extends. Similarly with the Supervision of Graduate Candidacies, the candidate is to be considered as enrolled and a student registration counted for each subsequent term until the degree is granted or the active candidacy terminated, regardless of whether formal dissertation or thesis credit is given by the institution for each such term or any term.)

The importance of the number of sections as a determinant of the cost of organized teaching has been discussed at some length earlier in this chapter. The number of sections, it will be remembered, is determined in part by academic decisions concerning course requirements and in part by the interaction of numbers of student registrations and optimum section sizes. These last two items--the number of student registrations and the optimum section size--have already been identified as part of the basic information for environmental units in organized teaching. To completely understand any such unit, however, it becomes necessary to go further and identify those characteristics of the students comprising the registrations in that unit which may have implications for projecting future registrations in the course. The importance of this cannot be stressed too strongly. If student registrations in courses are identified and classified according to certain characteristics of the student which might have a bearing on reasons why the student is registered in the course, course registration patterns emerge. Future students with like classifications may be expected to follow the same patterns. Thus projection of course registrations and section requirements becomes not only simpler but more realistic.

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[12] Supra, p. 74.

Four identifiable characteristics of students have considerable relevance to the course patterns which he may be expected to follow in the institution:

1. The degree which the student is seeking.

2. The field of study in which he is enrolled.

3. The progress category or level of advancement of the student. Students tend to take courses at certain times in their academic careers and in certain orders.

4. The extent to which the student is "full-time." Part-time students tend to have different course patterns than full-time students.

Item C is concerned with the classification of the student registrations in any particular unit in accordance with these characteristics. The degree is defined as the title bestowed as official recognition for the completion of a curriculum, or for a certain attainment. The first is an earned degree; the latter an honorary degree. This analysis is concerned only with earned degrees. In 1960 Eells and Haswell found more than 1,600 different academic degrees which were then being conferred by colleges and universities in the United States.[13] Obviously, this would constitute too large and complex a list to be used for meaningful classification and analysis. The U.S. Office of Education, in its annual survey of "Bachelor's and Higher Degrees Conferred," issues a questionnaire and instruction sheet with, currently, four categories of degrees:

1. Bachelor's Degrees
2. First-Professional Degrees Requiring 5 or More Years
3. Master's Degrees
4. Doctorate

This categorization, as defined in the annual instruction sheet, is hereby incorporated as the classification scheme for degrees in this analytic procedure. The most recent classification, that for the year 1964-65, is reproduced in Appendix A of this report. To the above four categories a fifth must be added for junior colleges:

5. Associate Degrees

In institutions granting both the Associate and the Bachelor's degrees, the classification of Bachelor's should be used unless the degree program involved has as its major objective the Associate degree. In any event, in calculating the progress category of the student,[14] the Bachelor's degree programs should always be considered as beginning with a student's original enrollment in an institution of higher learning and never as beginning after the completion of an Associate degree program.

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[13] Walter Crosby Eells and Harold A. Haswell, Academic Degrees (U.S. Department of Health, Education, and Welfare, Office of Education; Washington: United States Government Printing Office, 1961), p. 1.

Field of study or field of concentration is defined as the student's primary area of specialization. It is necessary for purposes of interinstitutional comparison to delineate the fields of study to be used in this analysis. The term is not exactly the same as subject matter field since some professional fields of study resulting in the awarding of recognized degrees may not, in themselves, represent a subject matter field. In Appendix A of this report is the classification used for 1964-65 in the previously mentioned U.S. Office of Education annual survey of "Bachelor's and Higher Degrees Conferred." The classification of Major Field of Study used each year for that questionnaire is hereby incorporated as the classification scheme for indicating the student's field of study in the analytic procedure here. This classification is periodically revised by the U.S. Office as man's knowledge expands and curricula of the institutions change. The specific revision to be used would always be the last issued prior to the beginning of the institution's fiscal year.

The third classification of student registration is concerned with the progress category of the student. The progress category of a student is a classification of the student in terms of his progress toward the degree which he is seeking in the institution. Such a classification is currently made by institutions in terms of some sort of a definition of student level. However, as actually used in institutions of higher learning today, definitions of level of student present several problems. They are generally phrased in terms of the traditional classifications of freshman, sophomore, junior, senior, and graduate. Unfortunately, these classifications are used interchangeably by institutions to describe a social classification of the student related primarily to the length of time that he has been enrolled at the institution and a classification related to his progress toward a degree. Current definitions of "levels of student" in colleges and universities in the United States seem to take three different directions:

1. The level is related only to the chronological counting of academic years that the student has been in residence. After he has been in residence for two semesters or three quarters, as the case may be, a student automatically moves from the classification of freshman to the classification of sophomore. This continues until the student becomes a senior. Such classifications carry several disadvantages. Since many students, changing curricula and repeating courses, take more than four academic

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[14] Infra, pp. 106-108.

years to graduate, the number of seniors or fourth-year students is often distorted. Other students carry overloads in academic years and attend summer sessions and graduate without ever becoming "seniors."

2. Classifications of level of student are based upon the completion of certain course requirements. Thus a student in some institutions remains a "freshman" or "first year" or, at least, "lower division" until he has completed certain prescribed core courses. In actuality, many students do not even take these core courses until their last year of residence. Thus many institutions show the rather incongruous picture of freshmen never becoming sophomores or juniors but moving immediately to seniors in their last semester of residence or, in some cases, graduating as freshmen since they do not take some of the core courses until the last semester of residence.

3. Classifications of level are based upon the division of total degree requirements into various portions measuring progress toward a degree. In this case the student moves from the classification of first semester freshman after the completion of twelve or thirteen hours of work, from a second semester freshman to a first semester sophomore after the completion of twenty-seven hours of work, and so on. The break points in the calculation of credit units and credit hours in these cases are generally set slightly below the actual norm for that stage of progress toward the degree to allow for the possibility that the student may make up a small credit deficiency by carrying an overload in some later enrollment period. This method is far more satisfactory than the first two but does require rather involved definitions for every curricula in the institution and presents some difficulty in the case of students who are changing curricula.

To avoid these difficulties and also to avoid redefining certain terms such as freshman, sophomore, junior, and senior which have a long historic meaning in institutions and a very useful social meaning in many institutions, this classification proposes to abandon traditional terms used to define student progress and substitute the concept of _progress categories_. The _progress category_ of each student is measured and recorded in terms of the number of _progress terms_ which the student has completed in relation to the particular degree which he is pursuing. A _progress term_ is defined as the regular academic teaching period of the institution being analyzed as defined earlier in this classification.[15] Thus in an institution under the semester system, the progress term would be one semester; in an institution under the quarter system, the progress term would be one quarter; on the trimester, it would be one trimester, etc. In order to make the progress term classification for undergraduate students, the institution is called upon to define the total number of progress terms normally required for a full-time student to attain the degree in the particular field of study which the student is pursuing at that institution. Thus in the same institution it might be eight progress terms for a bachelor's degree in liberal arts and ten progress terms for a professional degree in pharmacy. Once this determination has been made, the institution is then asked to evaluate for each student the number of progress terms remaining for that particular student to complete his degree program. This refers to the number of terms remaining after the close of the term under analysis. This would be a regular classification carried each year on the student's basic record. This figure (the number of terms remaining) subtracted from the total progress terms required for that field of study would give the progress term classification of that particular student.

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[15] _Supra_, p. 98.

For graduate students the basic calculation by the institution would be the total number of progress terms normally required for a full-time graduate student to complete his formal campus course requirements for the particular graduate degree which he was pursuing. The second step would be to evaluate the number of terms remaining for any student to complete these campus course requirements, and the classification again would be a subtraction of that number from the total as calculated in that particular field of study. Once the graduate student had completed the campus course requirements and entered the dissertation or thesis stage, his progress term classification would be expressed as "D" followed by the number of institutional progress terms that the student had been in the "D" category or the number of institutional progress terms that had elapsed since the completion of his formal course requirements.

It should be remembered that this progress category is always presented along with the student's field of study and the degree which the student is pursuing. Thus the total number of progress terms for any particular field of study and whether or not the student was pursuing an undergraduate or graduate degree would always be available with the progress category.

This method of classification of student progress has several advantages: first, progress is always reported in terms of degree progress; second, allowance is made for individual institutional definitions of curricula and requirements for completion of those curricula since definition of progress is made by the institution and in its own progress terms. However, the reporting of this progress is in a common language which can be compared between institutions. Third, the problem of students changing curricula or taking certain overloads is taken care of since the calculation is made on the basis of the number of terms remaining to complete the degree program. Thus a student who has only two semesters to go in one curricula may transfer to another which leaves him with three semesters to complete the requirements. This would immediately be reflected without having to make any adjustment as to the number of credits which he had already earned.

The fourth student classification is that of course load. In addition to degree sought, field of study, and progress category, it is important to know the total course load for each student comprising a registration in any environmental unit. The course load represents the total number of courses for which the student is registered during the term under analysis. It is a quantification of the degree to which a student may be considered to be "full time."

Identification and Classification of the Environmental Unit

The first step in the analysis of Organized Teaching involves the identification and classification of each environmental unit within that category. In the case of Group Instruction, the unit would always be a course, a course division, or a section. In the case of multi-division courses and multi-section course divisions, each course division and/or section should be identified as an individual environmental unit. It is always possible to bring these together for any one course when it is desirable to analyze the course itself.

In the case of One Teacher-One Student Relationships, the environmental unit would consist of the student in relation to the one teacher. In the case of the Supervision of Graduate Candidacies, the environmental unit would always be the student under the supervision of any one teacher, whether a formal course registration was involved in the dissertation process or not. Many institutions do not require registration of graduate students who are engaged in completing a dissertation. Such students, however, are under the supervision of a major professor and represent a real teaching load to him. Thus it is essential that they be identified as environmental units and given an assignment value.

The environmental unit for Experience Courses would be the course if such was identified. If it were merely an experience program with no formal course identification, the environmental unit would be the program. For Correspondence Study, the environmental unit again would consist of each course for which individual students were registered.

Once every environmental unit has been identified, the next step is to describe and classify each of these units in accordance with the classifications outlined in Exhibit 15. Exhibits 16, 17, 18, 19, and 20 are examples of the classification and description of five different environmental units under Organized Teaching for a hypothetical institution. The first thing that is noticeable about these exhibits is that the information on them does not seem nearly as complicated when attached to a specific environmental unit as it does when viewed in the whole informational matrix shown in Exhibit 15.

EXHIBIT 16

I. Course: Chemistry 101
Basic Chemistry
Course Division: Lab.
Section: C

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Chemistry

Credits:
Course: 4
Course Division: -

Contact Periods Per Week:
Course: 3
Course Division: 1 - 150 min.

Term Hours:
Course: 75.0
Course Division: 37.5

Characteristic of Organization:
Course: Group Instruction
Lecture-Laboratory
Course Division: Lab.

Subject Matter: Chemistry
Level of Instruction: Undergraduate

II. Academic Load:
Policy: .25
Assignment Value: .25
Actual Value Current Term: .25
Direct Academic Compensation: $600
Immediate Support: 85

Name of Teacher: Jones, E.T.
Rank: Student-Grad. Asst.
Total Academic Comp. (FTE Rate) for Term:
Salary: $2,400
Staff Benefits: ---

III. Student Registrations
Optimum Size: 32
Actual: 28

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
8	Bachelor's	7701-1	4
1		7701-1	2
1		7725-2	4
5		6816-3	4
1		6819-7	5
6		2359-1	4
2		2376-3	4
2		2004-1	4
1		2004-3	2
1		2002-6	4

EXHIBIT 17

I. Course: History 475
Special Problems
Course Division: -
Section: -

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: History

Credits:
Course: 3
Course Division: -

Contact Periods Per Week:
Course: -
Course Division: -

Term Hours:
Course: -
Course Division: -

Characteristic of Organization:
Course: One teacher-one student relationship
Independent Study
Course Division: -

Subject Matter: History
Level of Instruction: Undergraduate

II. Academic Load:
Policy: 20 students constitute 1.0
Assignment Value: .3
Actual Value Current Term: .3
Direct Academic Compensation: $2,640
[illegible]mediate Support: 125

Name of Teacher: Harrison, G.L.
Rank: Professor
Total Academic Comp. (FTE Rate) for Term:
Salary: $8,000
Staff Benefits: 800

III. Student Registrations
Optimum Size: -
Actual: 6

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
2	Bachelor's	7716-7	4
1		7716-8	4
2	Master's	7716-1	1
1		7716-2	2

EXHIBIT 18

I. Course: History 699
Doctoral Dissertation
Course Division: -
Section: -

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: History

Credits:
Course: -
Course Division: -

Contact Periods Per Week:
Course: -
Course Division: -

Term Hours:
Course: -
Course Division: -

Characteristic of Organization:
Course: One teacher-one student relationship
Supervision of Graduate Candidacies
Course Division: -

Subject Matter: History
Level of Instruction: Graduate-Doctoral

II. Academic Load:
Policy: 40 students constitute 1.0
Assignment Value: .1
Actual Value Current Term: .1
Direct Academic Compensation: $660
Immediate Support: 45

Name of Teacher: Sawyer, G.L.
Rank: Associate Professor
Total Academic Comp. (FTE Rate) for Term:
Salary: $6,000
Staff Benefits: 600

III. Student Registrations
Optimum Size: -
Actual: 4

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
2	Ph.D.	7716-D1	1
1		7716-D4	1
1		7716-D6	1

EXHIBIT 19

I. Course: Education 371
Guidance Theory
Course Division: -
Section: -

Term: Fall Semester, 1965
Location: Main Campus
College: Education
Department: Counseling and Guidance

Credits:
Course: 3
Course Division: -

Contact Periods Per Week:
Course: -
Course Division: -

Term Hours:
Course: -
Course Division: -

Characteristic of Organization:
Course: Correspondence Study
Course Division: -

Subject Matter: Education
Level of Instruction: Graduate and Advanced Undergraduate

II. Academic Load:
Policy: 60 students constitute 1.0
Assignment Value: .03
Actual Value Current Term: .03
Direct Academic Compensation: $140
Immediate Support: 15

Name of Teacher: Grant, L.G.
Rank: Assistant Professor
Total Academic Comp. (FTE Rate) for Term:
Salary: $4,250
Staff Benefits: 425

III. Student Registrations
Optimum Size: -
Actual: 2

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
1	Master's	2372-1	1
1	None	2372	1

EXHIBIT 20

I. Course: Psychology 313
Psychology of Learning
Course Division: -
Section: -

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Psychology

Credits:
Course: 3
Course Division: -

Contact Periods Per Week:
Course: 3 - 50 min.
Course Division: -

Term Hours:
Course: 37.5
Course Division: -

Characteristic of Organization:
Course: Group Instruction Lecture
Course Division: -

Subject Matter: Psychology
Level of Instruction: Undergraduate

II. Academic Load:
Policy: 300 student contact periods per week constitute 1.0
Assignment Value: .33
Actual Value Current Term: .33
Direct Academic Compensation: $2,750
Immediate Support: 220

Name of Teacher: Fay, R.C.
Rank: Professor
Total Academic Comp. (FTE Rate) for Term:
Salary: $7,500
Staff Benefits: 750

III. Student Registrations
Optimum Size: 40
Actual: 33

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
3	Bachelor's	7707-6	4
4		7725-7	4
8		7101-5	4
2		7101-6	4
5		2372-5	4
5		2372-6	4
4		2359-7	4
2		2359-7	1

The first step in identification and classification would be to identify, for each environmental unit, all of the information previously listed as "Information Designed to Identify and Classify the Unit for the Purposes of Further Analytic Treatment" and illustrated in the first section of each of the Exhibits 16 through 20. Most of this information is of a relatively permanent nature and, once recorded, would not have to be redone unless some major course revision took place. The identification of the term necessarily would change for each term being analyzed. The only other change from year to year might be the calculation of Term Hours to allow for varying lengths of terms. The rest of the information would be permanently carried by each course or course division (the information for every section would be the same as that of the course division of which it was a part) and thus would become part of the basic analytic records of the institution unless some sort of a major course revision took place. It will be noticed that the number and length of contact periods are recorded only for organized courses (or course divisions) which meet at regular periods. The information and classification throughout the first section (I.) of the exhibits should be determined and guided by the definitions previously presented in this chapter.

The only relatively permanent description of the environmental unit found in II. (Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit) is the evaluation of the unit as a portion of the full-time academic load. As indicated in the previous discussion of the division of faculty time,[16] the intention here is for the institution to evaluate each environmental unit as a portion of the academic load of the person assigned to teach it. Presumably this evaluation would be carried relatively permanently by the unit, subject to change only if some basic change were made in load policy or some change made in the method of presentation of the unit itself which would increase or decrease its load value. This is, of course, a major policy decision on the part of the institution. Perhaps the policy might better be understood as representing the _assignment value_ of the unit. The decision on this value should be made by the person actually responsible for making the teaching assignment of that unit in the institution. Certainly such a decision should be made only after thorough familiarity with the work involved in the presentation of the instructional material in the particular unit under consideration and after consultation with faculty members who have taught or may actually be teaching the unit. Ideally, these policy decisions as to the assignment value or teaching load value of each unit would be made after serious consultation between the department or division head and the faculty members responsible for the units. Although the expression of this policy is in terms of the percentage of full-time to be devoted to an assignment by an individual, the policy itself is entirely a matter for institutional determination. The institution may choose to determine, as in the case of Exhibit 16, that the particular section under question represents one-fourth or .25 of a full-time academic load under all circumstances. On the other hand, the institution may wish to express the policy in terms that will recognize the number of students as an additional factor in determining the assignment value, as is the case in Exhibits 17, 18, and 19. In this case, it will be noted, the policy is expressed in terms of how many students constitute a full load or a 1.0 equivalent teacher. From this it is very easy to make the calculation of the actual load on the basis of the number of students registered. Although Exhibits 17, 18, and 19 refer to One Teacher-One Student Relationships and Correspondence Study, the institution could, if it desired, bring numbers of students into play in the policy for a course or section in Group Instruction. Thus the policy could be expressed in terms of a course representing .25 of an academic load if it had 30 students or less. If the student enrollment rose past 30, the assignment value might be increased to .33. Exhibit 20 gives an example of a teaching load policy which is expressed in terms of student contact periods. It should be emphasized again that this is entirely an institutional determination and the purpose here is to actually represent the policies being followed by the institution being analyzed.

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[16] _Supra_, p. 103.

It will be noticed that there are three items of information recorded under Academic Load--the policy applicable to the environmental unit, the optimum assignment value calculated from that policy, and the actual assignment value for the current term.

The Policy has been discussed in the previous paragraph. It may be recorded as the portion of an academic load represented by the unit (Exhibit 16) or in terms wherein numbers of students are involved in the calculation (Exhibits 17, 18, 19, and 20).

The Optimum Assignment Value represents the full-time-equivalent value of the unit being analyzed as calculated from the policy. If the policy is expressed solely in these terms (Exhibit 16), this figure will be the same as that recorded for Policy.

The Actual Assignment Value Current Term is likewise always expressed in terms of full-time-equivalencies and represents the assignment value actually applicable to the unit for the term under analysis. This is the figure used to calculate the professional compensation applicable to the unit (A x D).[17] This figure should normally be the same as the Optimum Assignment Value, as is the case in all five illustrations presented here. However, they would be different in the case of an "overload." The situation might be that a particular course or series of courses were each considered to have an assignment value or load evaluation of .33. In such a case, three such courses would constitute a full-time academic load. However, due to a faculty shortage for the number of students registered, it might be necessary to increase the workload for a faculty member for a particular term and assign to a particular teacher four such courses. If this increase represented a permanent change in policy, the policy figure should also be changed from .33 to .25. If, however, it were only a temporary thing to handle an emergency situation, the policy figure and the optimum assignment value would stay at .33 but the actual assignment value for the current term would be reduced to .25. In no case should an overload be recorded in such a manner as to result in any faculty member being more than 100 per cent of a man or more than 1.0 full-time-equivalent academic staff. The fact that the current term figure was lower than the policy figure would reflect the fact of the overload in that particular term. This procedure applies also to "underloads." If a faculty member were teaching only two courses and had no other assigned duties[18] and the policy value of those courses were only .25 apiece, they would be increased to .50 apiece.

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[17] Supra, p. 97.

It is recognized that the requirement that no one individual be reflected as more than 1.0 FTE academic staff is not consonant with the established views and practices at some institutions. Often a faculty member with a "full" daytime load is employed by the institution to teach an additional course in the evening college for an additional standard stipend, which may bear no relationship in dollar amount to the level of his base salary. For example, the daytime position may be considered 1.0 FTE for teaching five courses at an academic compensation rate of $5,000 for the term and his "nighttime (intrainstitutional moonlighting?) position" as another .25 FTE for teaching the single course for a sum of $400 for the term. In the standardized procedure here, however, the individual person may not be counted as more than 1.0 FTE in total regardless of his responsibilities; thus our hypothetical faculty member is 1.0 FTE staff (rather than 1.25) with a term academic compensation of $5,400 for that 1.0. The division or attribution of the total compensation to the separate courses then depends upon the relative assignment value of each. The academic compensation cost assigned to the evening college course would in all probability exceed considerably the $400 "marginal cost" evidenced by the overtime contract. For instance, if it were determined that each of the six courses had an equal assignment value, then the academic compensation cost assigned to the night course would be $900, as well as would that of each of the daytime courses. The alternative of accepting an evaluation of a single person's services as exceeding 1.0 FTE would seem to invite such additional subjective latitude and differences as to substantially mitigate the validity of interinstitutional comparisons of FTE staffing, workloads, compensation, utilization ratios, etc., based upon such evaluations.

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[18] In making this judgment, the institution should be certain that there is no arrangement with the faculty member that might constitute an assignment of "Faculty Development Time." For further discussion of the Faculty Development Time concept, see *infra*, pp. 145-148.

Item III. (Information Designed to Identify and Measure the Utilization of the Unit and Its Resources) contains only one item of information which attaches relatively permanently to the environmental unit. This is the identification of the optimum size of the class and would be used only in the case of Group Instruction organizations. This is another institutional policy decision. The institution must identify for every environmental unit classified under Group Instruction a class size policy to be expressed as an optimum size of the class. The concept of optimum size was discussed earlier in this chapter.[19] This is not the maximum size to which the class might go but represents the institutional decision as to the ideal class size for purposes of instruction under existing institutional conditions. These optimums in many institutions already may be established for most multi-section course divisions. They should also be established, under this analytic procedure, for every course division. At first it might be thought that the establishment of such optimum sizes for classes which are not multi-section in nature and might never be would represent a rather unrealistic decision. In practice, however, where institutions have done this, it is possible to get a fairly realistic optimum by careful discussion with the individual in charge of that particular unit or its department. A more realistic answer is received if the question concerning optimum size is phrased not in terms of optimum size itself but in terms of the point at which the instructor or department head feels it would be absolutely necessary to break the class into two sections. Once this point has been established, an optimum size can be obtained by applying the formula $C = .67(S - 1)$ when S is the least number of students for which two sections are to be required. (This formula is a derivation of the formula $(S - 1 + .5C) \div C = Z$, which was previously suggested for calculating the number of sections,[20] substituting 2.00 as the value of Z.)

The items which serve to describe the environmental unit for organized teaching as illustrated in Exhibits 16 through 20 fall into two categories. The first would include those classifications and items of information that are relatively permanently attached to the environmental unit and may be identified with it in advance of each actual current analysis. Once this identification has been made, it becomes part of a permanent record attached to each environmental unit and needs to be changed only when some basic change in the unit itself has occurred or if a change occurs in the institutional policies concerning teaching load and class size. These items would include the following:

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[19] Supra, p. 104.

[20] Supra, p. 82.

Course
Course Division
Location
College
Department
Characteristic of
  Course Organization
Subject Matter
Level of Instruction
Credits
Contact Periods Per Week,
  Number and Length
Term Hours
Academic Load: Policy
Optimum Assignment Value
Optimum Size

The second category consists of information which results from the current analysis of the institutional operation for any particular term and applies to the unit for that particular analytic period only. This would include:

Term
Section
Academic Load:
  Actual Assignment Value
    Current Term
Direct Academic
  Compensation
  (allocated to unit)
Immediate Support
Name of Teacher
Rank
Total Academic Compensation
  (FTE Rate) for Term
Student Registrations:
  Actual
Student Classifications

The Analysis of Expenses for Academic Counseling

The second major analytic category under the function of Instruction is that of Academic Counseling. It will be remembered that this category has been defined as including those environmental units providing formal assigned consultation with students by faculty members concerning the total academic program and progress of the student. The word "assigned" must be emphasized here. In this analysis Academic Counseling should be included as a function of Instruction and expenses allocated to it only to the extent that this activity is formally recognized by the institution as a part of the faculty workload. Its evaluation as a portion of this workload depends upon the institutional recognition policy, not upon a faculty time utilization report. To the extent that this recognition is given, Academic Counseling includes faculty time involved in both the routine approval of courses to be taken and the more intensive counseling that might arise in over-all program selection and planning, including service on graduate committees in a role other than that of the committee chairman.

The environmental unit, and hence the cost center, for Academic Counseling is the group of students comprising the counseling responsibilities of any one faculty member. Thus in any institution the number of environmental units for Academic

Counseling will always equal the number of faculty members carrying on this activity as an assigned responsibility.

The information to be identified with each unit in order to completely describe it is, in many cases, very similar to the information defined earlier which attaches to the environmental units for Organized Teaching. Exhibit 21 presents this information for Academic Counseling. Many of the terms used in Exhibit 21 have been defined under the discussion of the analysis of Organized Teaching. Some, however, are either new or need further clarification when used in a new context. The unit designation in this case would always be Academic Counseling. The category of Assigned Counseling of Students on Programs would include all Academic Counseling defined earlier except Graduate Committee Service. It should be emphasized, however, that the concern here is only with academic counseling. Organized counseling of students on personal problems which do not relate to the student's academic program would fall under social-psychological counseling within the category of Student Development in the function of Services to the Academic Community. Graduate Committee Service would not include the efforts of the major professor or committee chairman which are classified as Supervision of Graduate Candidacies under Organized Teaching. It would, however, include all other Graduate Committee Service to the extent that this was recognized by the institution as a portion of the faculty member's academic load. "Graduate Committee" here refers to committees appointed for the supervision of graduate student work and not to administrative committees of the institution. Number of Students refers to the total number of individual students counseled by any one faculty member. This group of students would comprise the environmental unit.

Exhibit 22 gives an example of the classification of an academic counseling unit in a hypothetical institution. The identification of the environmental units in any institution consists of the identification of all faculty members with recognized counseling responsibilities for students on programs and/or graduate committee assignments. As in the case of Organized Teaching, the academic load policy should be expressed in the same terms as it is actually expressed in the institution. In the example given in Exhibit 22, it is expressed in terms of a total number of students comprising a full load. It might also have been expressed in terms of a full-time academic equivalent.

Exhibit 22 shows the responsibility only for the Assigned Counseling of Students on Programs. If a faculty member has an assigned responsibility both for the counseling of students on their programs and for graduate committee service and the teaching load policy for these two types of assignments differs, it would be necessary to show both teaching load policies, both assignment values and actual values, and to divide the number of students between the two responsibilities as the case might be. This, then, would result in two allocations of Direct Academic Compensation and Immediate Support--one to the Assigned Counseling of Students

EXHIBIT 21

BASIC INFORMATION FOR ENVIRONMENTAL UNITS IN ACADEMIC COUNSELING

I. Information Designed to Identify and Classify the Unit

   A. Institutional Designation
      1. Unit designation
      2. First level (lowest) organizational unit
      3. Second level organizational unit
      4. Location
      5. Term
   B. General Classifications
      1. Assigned counseling of students on programs
      2. Graduate committee service

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

   A. Evaluation of Unit as Portion of Full-Time Academic Load
   B. Name of Counselor
   C. Rank of Counselor
   D. Total Academic Compensation (Full-Time Rate) for Term
   E. Direct Academic Compensation Allocated to This Unit (A x D)
   F. Immediate Support Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

   A. Number of Students
   B. Enumeration of Students by Combination of the Following Classifications
      1. Degree sought
      2. Field of study
      3. Progress category
      4. Course load

EXHIBIT 22

I. Academic Counseling
Assigned Counseling of
Students on Programs

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Economics

II. Academic Load:
Policy: 100 students constitute 1.0
Assignment Value: .1
Actual Value Current Term: .1
Direct Academic Compensation: $440
Immediate Support: 65

Name of Counselor: Peterson, M.L.
Rank: Assistant Professor
Total Academic Comp. (FTE Rate) for Term:
Salary: $4,000
Staff Benefits: 400

III. Number of Students: 10

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
2	Bachelor's	7713-1	4
2		7713-2	4
2		7713-3	4
2		7713-4	4
1		7713-6	2
1		7713-7	4

on Programs portion of the unit and the other to the Graduate Committee Service portion.

The Analysis of Expenses for the Provision of Professional Training Facilities

The third analytic category within the function of Instruction is the Provision of Professional Training Facilities. This category is concerned with expenses incurred in providing special facilities which are primarily for the training or teaching of the student in the practical working situation of his field or profession and which invariably have some marketable "by-product." These special facilities may be provided either through the institution creating and maintaining it or through the purchase of the use of such a facility from an outside source. The existence of a marketable by-product is essential for an activity to be placed in this category, whether that product (or service) is actually sold or not. Under this definition, this category would include such activities as a medical school teaching hospital, a nursery school or demonstration school, and a veterinary clinic, for example.

The first thing to be emphasized in classifying an activity in this category is the fact that the rule of primacy of purpose should be followed in making the classification. It is obvious that almost all of these professional training facilities, once established, are used to perform more than one type of institutional service. A teaching hospital, for example, provides professional training for medical students, probably serves as a center for research, and most certainly provides some sort of a public service. An attempt to make a logical division of its activities, and hence its expenses, between these three functions would be at best an educated guess. Actually, all of the different types of services or service functions are being carried on at the same time. This is especially true with Instruction and Public Service in this type of environment. The question to ask, then, in making the classification, is "Why does the institution operate a hospital in the first place?" If the answer is to provide a place for professional training of medical students, the activity should be classified as a professional training facility. If the answer is to provide hospital service for the general public or a special public of some sort, the activity should be placed under Services to the Public.

The second thing to note is that the classification is on the basis of activity rather than organization. "The training facility may be provided either through the institution creating and maintaining it or through the purchase of the use of such an environment from an outside source." To use the previous example, if an institution chooses to provide hospital training experience for medical students through the purchase of the use of facilities of some hospital, public or private, in the community rather than establish its own hospital, the cost of this purchase should be reflected under Provision of Professional Training Facilities.

The multi-purpose nature of professional training facilities, when provided by the institution, makes them susceptible of several different analytic approaches, all of which have value for the institution. The first of these, and the one with which this study is primarily concerned, is on the basis of the instructional service provided to students being trained in the institution. The second would be concerned with the specialized service being provided by the facility to the purchasers of that service who might or might not be connected with the institution in any other way. This would involve the analysis of the operations of a teaching hospital as a hospital providing services to patients. It would involve the analysis of a demonstration school as a subcollegiate school providing services to elementary and secondary students. This second type of analysis of the professional training facility should most certainly be made by the institution, especially since it is very closely related to the establishment of a selling price for these services to its customers. The principles upon which such an analysis should be made would be the same as those outlined in this study; i.e., the identification of cost centers and the identification of the users or purchasers of the service as a factor of the utilization of the facility in this manner. Such analyses would be of many different types since they would be concerned with hospitals; clinics; nursery, elementary, and secondary schools; farms; hotel facilities; and the like. The primary concern of this study is with the prime function of the professional training facility which is the provision of instruction to degree-credit students. As a result, aside from stressing the importance of the secondary type of analysis, the analytic principles involved are not covered in this project but are reserved for specialized studies of the various activities involved.

As related to Instruction, the support unit, and hence the cost center, for the Provision of Professional Training Facilities is the professional training facility itself, whether that facility is created and operated by the institution or secured as a result of purchase of service by the institution. Exhibit 23 presents the basic information to be identified with each support unit in this category.

As was the case for Academic Counseling, many of these terms have already been defined under the discussion of Organized Teaching. Unit designation in this case would refer to the institutional title or designation of the unit through which the professional training facility was provided, such as University Hospital, Margaret A. Peterson Nursery School, and the like. The organizational unit designation would refer to the administrative organizational unit or units of the institution responsible for the administration of the particular facility. If the facility is not created and operated by the institution but the use of it is

EXHIBIT 23

BASIC INFORMATION FOR SUPPORT UNITS IN THE PROVISION OF PROFESSIONAL TRAINING FACILITIES

I. Information Designed to Identify and Classify the Unit

- A. Institutional Designation
    1. Unit designation
    2. First level (lowest) organizational unit
    3. Second level organizational unit
    4. Location
    5. Term
- B. General Classifications
    1. Teacher training facility
    2. Food service training facility
    3. Agricultural training facility
    4. Forestry training facility
    5. Clinical and counseling training facility
    6. Medical training facility
    7. Aeronautical training facility
    8. Transient housing training facility
    9. Data processing training facility
    10. Theatre training facility

    (Other classifications of professional training facility to cover situations which do not fit into any of the above classifications may be defined and identified by the institution.)

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

- A. Total Full-Time-Equivalent Staff
- B. Personal Compensation Allocated to This Unit
- C. Supplies and Expense Allocated to This Unit
- D. Special Indicators of Size and Scope of This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

- A. Optimum Size of Student Registrations under Established Institutional Policy
- B. Number of Student Registrations
- C. Enumeration of Student Registrations by Combination of the Following Classifications
    1. Degree sought
    2. Field of study
    3. Progress category
    4. Course load

purchased from an outside source, the first level organizational unit should be shown as "not operated by university (or college)."

The general classifications of the type of facility represented are self-explanatory. As indicated, if an institution is operating a professional training facility that does not fit into one of these classifications, it should define a suitable classification and use this as an identification.

Since Professional Training Facilities are made up of support units rather than environmental units, Item II.A., Total Full-Time-Equivalent Staff, refers to all employees performing duties related to the *provision* of the facility. The figure would *not* include the equivalent load of persons responsible for teaching or directing the courses or programs being carried on in the unit. This load would be reflected under Organized Teaching since it was part of the utilization of the unit rather than the provision of it. For example, in a university demonstration school or laboratory school, the portion of the academic load of the faculty member in charge of practice teaching which was represented by that assignment would be accounted for under Organized Teaching (related either to the course or to the program, as the case might be) rather than charged as part of the staff of the laboratory school. On the other hand, if the superintendent of the laboratory school were also a professor of education, the portion of his load which the direction of the laboratory school represented would be included in the calculation of the full-time-equivalent staff in the professional training facility. It will be necessary, of course, for the institution to make a policy determination as to what portion of such staff load was represented by the provision of that facility. The *personal compensation* allocated to the unit would include the total compensation for the term of all of the staff members. All other expenditures of the unit would be included in *supplies and expense*.

Category D, Special Indicators of Size and Scope of the Unit, would contain different types of information depending upon the professional training facility which the unit represented. In each case it would include nonfinancial data which reflected the size of the unit and the scope of its activities. Exactly what data this would be would depend to a large extent on the activity being carried on. If the unit were a laboratory school, this might include the number of students (in this case subcollegiate students enrolled in the school) and the number of teachers (in this case the teachers of the subcollegiate students in the school). In the case of a teaching hospital, it might include the average patient load, the total number of beds, and the total number of various categories of staff. If the unit were a farm, it might include the type of farm, the total number of employees, the total acreage, and the total value of crops produced in the year. In all cases it should include the gross income to the unit resulting from the sale of its activities or "marketable by-product."

The number of student registrations would refer to the number of degree-credit students utilizing that facility in any course or program in any given term as a required element of their work towards a degree. In a laboratory school, it would not refer to the subcollegiate students actually in the school but rather to the college students observing or practice teaching in the school. The policy determination of optimum size would indicate the number of student registrations in various programs utilizing the professional training facility that the institution considered the facility capable of accommodating at its present size. The implication would be that if the number of students in those particular programs went beyond this figure, it would be necessary to expand the professional training facility in some way in order to accommodate them.

Exhibits 24 and 25 give examples of the classification of two professional training facilities in a hypothetical institution. Exhibit 24 is a professional training facility actually operated by the institution. In the case of Exhibit 25, the use of the facility has been purchased by the institution from an outside source.

Objections are often raised to the approach taken herein to the analysis of the expenses involved in the provision of professional training facilities because of the fact that all of these expenditures are "charged" to Instruction. One view is that they should be allocated between the functions being carried on in the facility. If the rule of primacy of purpose is to be followed, as it has been in this analysis, it follows also that the expenditures should be charged to the prime purpose or function. The difficulty of making any meaningful allocation of expenditures of time, effort, or expenditures between the various functions involved in this type of unit has already been discussed. This does not mean that efforts to find a meaningful base of allocation should be abandoned. Certainly such allocation, if possible, would be an extremely desirable thing. Within any one institution a meaningful base of allocation of these expenditures might be found. Such an allocation on this base might be used with profit within that institution. When, however, it comes to providing a meaningful method of allocation to be used by varying institutions, the problem is much more difficult. One of the basic prerequisites for any cost allocation or distribution is an intimate knowledge of the operation within which the allocation is to be made and a familiarity with the general philosophy of the enterprise under study.[21] No central prescription of method can possibly have the necessary familiarity and knowledge of 1,500 institutions of higher learning.

The second suggestion often made is that the "cost to the institution" of the professional training facility, and hence the

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[21] Harris, op. cit., pp. 502-503.

EXHIBIT 24

I. H. T. Langford Memorial Clinic
Clinical and Counseling Training Facility: Speech Clinic

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Speech

II. FTE Staff: 5.5
Personal Compensation: $24,850
Supplies and Expense: 14,000

Special Indicators:
Total Persons Served: 43
Gross Income: $22,300

III. Student Registrations
Optimum Size: 28
Actual: 18

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
9	Bachelor's	2316-7	4
7		2316-8	4
1	Master's	2316-1	3
1		2316-1	2

EXHIBIT 25

I. Michigan Public Schools Teacher Training Facility

Term: Fall Semester, 1965
Location: State of Michigan
Not Operated by University

II. FTE Staff: 0
Personal Compensation: ---
Supplies and Expense: $85,000

Special Indicators:
Not Operated by University

III. Student Registrations:
Optimum Size: 350
Actual: 236

Student Classifications

No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
84	Bachelor's	2356-7	4
40		2359-7	4
75		2356-8	4
37		2359-8	4

"cost" that should be charged to Instruction, is the net that remains between the expenditures for the activity and the income derived from the activity. This point of view is rejected by this study. In the first place, it apparently holds some sort of a thesis that expenditures for such purposes by the institution are not really institutional expenditures or institutional costs. This apparently results from a confusion of certain types of relationships that exist between institutional income and institutional expenditures. Income is one thing, and expenditures are another. It is very valuable to relate income to expenditures for several purposes as will be discussed later in this study,[22] but this relationship does in no way reduce the total amount of expenditures. It makes no more sense to say that only the difference between institutional expenditures and institutional income for professional training facilities should be counted as institutional "costs" than it would to say that only the difference between institutional expenditures and institutional tuition collections should be counted as institutional "costs." In the second place, this difference may have only a remote relationship to Instruction. In some cases, the income produced by professional training facilities exceeds to a considerable extent the expenditures of those environments. This does not mean, however, that those facilities had zero or negative "costs."

A major purpose of financial analysis of institutions of higher learning as outlined in this procedure is to show what resources of the institution were devoted to the instructional process and other service functions and what the cost of the use of these resources was in dollar terms. If, to operate a medical school, an institution finds it necessary to construct and operate a teaching hospital with an annual operating expenditure of $5 million, this is shown as the cost of medical instruction to provide a professional training facility. It tells the person using the analysis that, if an institution wishes to operate a medical school with an enrollment similar to that of the institution being analyzed, it is necessary to provide--or at least that institution thought it was necessary--a facility where the medical students may obtain practical experience and that this environment costs $5 million a year to operate. Presumably anyone else wanting to establish a similar medical school should thus be prepared to furnish in some way a comparable facility which might be expected to have a comparable cost. How this teaching hospital facility was paid for is another matter and will be shown when comparative income and expenditure statements are inspected. True enough, this type of expenditure should always be held separate from the regular Organized Teaching expenditures as this analysis would recommend. They cannot be joined together with other instructional expenditures to come up with a total "instructional cost per student." They are, however, real and can be neither ignored nor hidden.

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[22] *Infra*, p. 184.

The Analysis of Expenses for Admissions

The fourth analytic category within the function of Instruction is Admissions. This category is concerned with those expenses incurred by activities of screening, selecting, and admitting students to the institution for instruction.

The support units within an institution for the category of Admissions are of two types:

1. The individual organizational units (or portions thereof) of the institution charged with the function of screening, selecting, and admitting students.

2. Those portions of the total workloads of any individual members of the academic staff which have been assigned to the admissions process.

The first type of unit would include the admissions office or any other organizational unit of the institution, whatever its title, which had a responsibility in the admissions process. If an organizational unit performed admissions activities in conjunction with other duties (such as an office of registrar and admissions), it would be necessary for the institution to determine which portion of those activities and their expenses were to be allocated to Admissions and which to the other functions of the office. Insofar as the expenses incurred by that office could be attributed directly to the admissions function, they should be so allocated. Where it would not be possible to attribute these expenses to one function or the other, the expenses should be allocated among the functions in proportion to the assigned time of the major professional staff of the office.

The second type of support unit would account for the service of academic staff members on admissions committees, either of the entire institution or of their particular college or curricula, or any other activities which were part of the admissions process.

Exhibit 26 presents the basic information to be identified with each support unit in this category. The unit designation would be identified either as the operating unit of the institution holding this responsibility or as academic staff time, as the situation might warrant. In the case of academic staff time, there should be some identification of the service being performed such as "admissions committee" or "admissions counseling." As was the case with the Provision of Professional Training Facilities, the total full-time-equivalent staff would refer to the entire staff of the unit, and the personal compensation allocation to the unit would be concerned with all of those staff members. All other expenses would appear under Supplies and Expense.

EXHIBIT 26

BASIC INFORMATION FOR SUPPORT UNITS IN ADMISSIONS

I. Information Designed to Identify and Classify the Unit

- A. Institutional Designation
  1. Unit designation
  2. First level (lowest) organizational unit
  3. Second level organizational unit
  4. Location
  5. Term

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

- A. Total Full-Time-Equivalent Staff
- B. Personal Compensation Allocated to This Unit
- C. Supplies and Expense Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

- A. Total Number of Applications Processed
- B. Total Number of Students Admitted
- C. Total Student Courses

Three different utilization factors appear for this function. The first (A.) is concerned with the total number of applications for admission processed during the period. The second (B.) is concerned with the total number of students admitted during that period. The third (C.) is more a measure of the admissions process in relation to the size of the institution than to the actual workload in any one period. It is expressed in terms of the total number of student courses in the institution during the period under analysis. When analysis of Instruction is done on the basis of only one term, only this third indicator can be meaningfully used as a utilization factor for the Admissions category. Since, in most institutions, the major portion of admissions applications are processed and students admitted during the winter, spring, and summer months, these utilization factors would have little relationship to the institutional academic terms. Thus (A.) and (B.) should be used only when analyzing the admissions process over an entire fiscal year period. Exhibits 27 and 28 give examples of the classification of two types of support units for a hypothetical institution. Exhibit 27 is concerned with a support unit represented by an organized institutional administrative office. Exhibit 28 is an example of an academic staff time unit. It will be noticed that the data for utilization of the unit (III.) is the same in both exhibits. Since the admissions activity is to be analyzed as a total activity, the total applications processed, students admitted, and student courses in any one period are to be considered as the workload of all of the support units together. If it is desired to make an analysis of the actual work of the university admissions committee (Exhibit 28), this is recommended as a special analysis rather than as being a part of the total analysis of the institution.

Although the resources devoted to the admissions process throughout the institution would be identified and the total sums involved together with the over-all average unit costs would serve as the bases for interinstitutional comparison, those institutions with decentralized admissions operations should maintain in the data system the identical elements of information concerning the separate admissions function for each of the several schools or colleges for historical and intrainstitutional comparison.

The Analysis of Expenses for Registration and Allied Activities

The fifth and last analytic category within Instruction is that of Registration and Allied Activities. This category is concerned with those expenses incurred in bringing students and teachers together in the course of Instruction and recording and transmitting the results thereof. It would include the activities and processes of registration, class scheduling, assignment of instructional space, production of class rolls, recording and

EXHIBIT 27

I. Admissions Office

Term: Fall Semester, 1965
Location: Main Campus
Department: Admissions Office
Office: Academic Vice-President

II. FTE Staff: 6
Personal Compensation: $13,463
Supplies and Expense: 8,228

III. Applications Processed: 121
Students Admitted: 0
Student Courses: 22,131

EXHIBIT 28

I. Academic Staff Time University Admissions Committee

Term: Fall Semester, 1965
Location: Main Campus
College: Education
Department: Guidance and Counseling

II. FTE Staff: .25
Personal Compensation: $1,650
Supplies and Expense: 20

III. Applications Processed: 121
Students Admitted: 0
Student Courses: 22,131

transcribing students' grades, and the printing of course catalogues and bulletins.

The approach to the analysis of this category is almost exactly the same as that of Admissions. Again, the support units consist of identifiable organizational units or portions of organizational units involved in these activities and academic staff time assigned to these activities. Exhibit 29 gives the basic information which is to be identified with each of these units. The only difference between this exhibit and Exhibit 26 for Admissions is that, in the case of Registration and Allied Activities, student courses represent the only utilization factor. Exhibits 30 and 31 give two examples of the classification of support units for Registration and Allied Activities in a hypothetical institution. Exhibit 30 is concerned with an organizational unit and Exhibit 31 with academic staff time.

EXHIBIT 29

BASIC INFORMATION FOR SUPPORT UNITS IN REGISTRATION AND ALLIED ACTIVITIES

I. Information Designed to Identify and Classify the Unit

   A. Institutional Designation
      1. Unit designation
      2. First level (lowest) organizational unit
      3. Second level organizational unit
      4. Location
      5. Term

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

   A. Total Full-Time-Equivalent Staff
   B. Personal Compensation Allocated to This Unit
   C. Supplies and Expense Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

   A. Number of Student Courses

EXHIBIT 30

I. Registrar's Office

Term: Fall Semester, 1965
Location: Main Campus
Department: Registrar's Office
Office: Academic Vice-President

II. FTE Staff:	11
Personal Compensation:	$17,395
Supplies and Expense:	8,275
III. Student Courses:	22,131

EXHIBIT 31

I. Academic Staff Time

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Philosophy

II. FTE Staff:	.1
Personal Compensation:	$550
Supplies and Expense:	13
III. Student Courses:	22,131

CHAPTER IX

THE ANALYSIS OF EXPENSES FOR RESEARCH

One of the most difficult problems in the analysis of an institution of higher education is involved with the function of Research and its relationship to Instruction. There can be no doubt that research plays a major role in the instruction of students and especially of graduate students. Indeed, the existence of a sizable research program is regarded as a necessity for adequate graduate instruction. When a graduate student is assigned to a research project, he is at the same time receiving instruction and contributing to the research effort. When a member of the teaching faculty is involved in a research project, he is at the same time broadening his base of knowledge, thus adding to his competency as a teacher, and playing a vital role in the research effort. Conversely, original knowledge may and often does result from the teaching of graduate students. This intermixture of Research and Instruction has led a substantial segment of the administrative officers of institutions of higher learning to maintain that research is inseparable from teaching and that any attempt to discriminate between the resources devoted to each is not only doomed to failure but highly misleading.

Yet higher education is in a position today where it cannot accept this answer. Research activities on the university campus have grown to such a proportion that institutional management cannot be content to merely dismiss them as something inextricably entwined with instruction that cannot be effectively measured. The university administrator must be able to make meaningful policy in that area. He must also be able to put that policy into quantitative terms and be able to measure to what extent that policy has been achieved. He must know the relationship between the research program and the instructional program in terms of the limited resources, both human and financial, which the institution has at hand. The existence of a research program and its magnitude constitute two of the major elements of diversity between institutions of higher learning. Time and again, state institutions are heard to complain that state legislatures and coordinating agencies have ignored the element of research in appropriations to and distributions among institutions within the state. Yet these same legislatures and coordinating agencies find it extremely difficult to take this important factor into account unless there exists some quantitative measurement and expression of the magnitude of the research effort and its effect upon the needs of the institution as a whole and its instructional program in particular.

One path out of this dilemma would be to approach the question of Research in the same manner as Professional Training Facilities. There are some similarities in the problems involved. Like Research, the Professional Training Facility often finds two or more basic institutional functions being carried on at the same time.[1] As was stated earlier, to make a meaningful separation of these activities is an impossibility. This problem was solved by following the rule of primacy of purpose and treating the Professional Training Facility as a part of the Instruction function.

The same approach could be taken for Research. Research, however, is more than a Professional Training Facility. It is not merely a different form of organization through which the instructional process is carried out. Although instruction does take place within research, research itself has long been recognized as a major function of an institution of higher learning, coordinate in importance with instruction. In this analysis, therefore, Research is treated as one of the major separable service functions of the institution. While this approach may seem to some to be arbitrary, it is absolutely necessary if a meaningful and useful analysis of the impact of research on the institution is to be obtained. While the instructional aspects of Research are clearly recognized, if research is adjudged to constitute the primary or even the coordinate purpose of an activity of the institution, that activity is classified under Research. In order to point up, emphasize, and measure the relationship of the Research effort to Instruction, one of the major subcategories used for the analysis of Research identifies whether the project under consideration involves students and to what extent, involves teachers but not students, or involves neither teachers nor students.[2]

For purposes of this analysis, Research is defined as critical and exhaustive investigation or experimentation having for its aim the discovery of new facts and their correct interpretation; revision of accepted conclusions, theories, or laws in the light of newly-discovered facts; or the practical application of such new or revised conclusions, theories, or laws, including the training of students through such investigation or experimentation. This would include those activities encompassed by the phrase Research and Development that seems to be increasingly used in governmental circles. The total function has been further subdivided into three categories:

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[1] *Supra*, p. 123.

[2] *Infra*, pp. 141-142.

1. Research projects
2. Faculty development time
3. Provision of special research facilities

The Analysis of Expenses for Research Projects

The category of Research Projects is concerned with those environmental units carrying on the substantive research (as opposed to those units which provide special research facilities that may serve or be utilized by a number of research projects) undertaken by the institution where the objective and subject matter are clearly recognizable and identified. Each such environmental unit constitutes a Research Project and should bear a title or designation indicative of its specific research objective.

The environmental unit for Research Projects is the research project itself. Each project, regardless of the manner in which it may be financed, should have the basic information shown in Exhibit 32 recorded for it. This category should have primacy among the research categories, i.e., every effort should be made to identify research projects. In the case of "sponsored" projects, this is relatively easy since the activities are generally budgeted in that manner. In other cases, however, the research undertaken may at first be identified only by the name of the professional staff member or principal investigator involved. If a clearly recognizable specific objective and subject matter can be identified, the research should be classified and accounted for as a project. If the research cannot be clearly identified as to specific objective and subject matter, the activity would be classified as Faculty Development Time.

Much of the information in Exhibit 32 is the same as that identified with Instruction environmental units in Chapter VIII. Certain items, however, are peculiar to Research and require specific definitions.

The unit designation would be the institution's own designation of the research project. This might be by number but should, if possible, include some identifying title for the subject under investigation. The organizational unit might be an instructional department or might be an organized research unit such as a Bureau of Governmental Research or a Bureau of Economic Research.

The general classification of Relation to Instruction is peculiar to the Research function. As was mentioned earlier in this chapter, the interrelationship of Research and Instruction is clearly recognized in this analysis. This classification tries to describe the degree of this relationship, insofar as such is possible. There are three subcategories under Relation to Instruction:

EXHIBIT 32

BASIC INFORMATION FOR ENVIRONMENTAL UNITS IN RESEARCH PROJECTS

I. Information Designed to Identify and Classify the Unit

  A. Institutional Designation
    1. Unit designation
    2. First level (lowest) organizational unit
    3. Second level organizational unit
    4. Location
    5. Term
  B. General Classifications
    1. Relation to Instruction
      a. Involving students
      b. Involving teachers but not students
      c. Involving neither teachers nor students
    2. Subject matter

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

  A. Evaluation of Unit as Portion of Full-Time Academic Load
  B. Names of Academic Staff Assigned to Unit
  C. Rank of Academic Staff Assigned to Unit
  D. Total Academic Compensation (Full-Time Rate) for Term
  E. Direct Academic Compensation Allocated to This Unit (A x D)
  F. Immediate Support Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

  A. FTE Academic Staff Assigned
  B. Number of Teaching Staff Participating
  C. Number of Research Registrations
  D. Enumeration of Research Registrations by Combination of the Following Classifications
    1. Degree sought
    2. Field of study
    3. Progress category
    4. Course load

A. Research Projects Involving Students.--An analytic subcategory which includes those research projects wherein students actively and substantially participate in the investigatory process (whether or not teachers are involved). Thus participation must require some knowledge of the subject matter field. Students involved may or may not be compensated for their participation. Projects in this subcategory would most certainly have an intimate relationship to Instruction, since students were actually involved in the research process. It should be noted that the involvement must be on a professional level. This is what is meant by the phrase "such participation must require some knowledge of the subject matter field." The involvement of a student in a role which required no subject matter knowledge of the field under investigation (student assistant labor as janitors or machine technicians) would not call for the project to be placed in this classification.

B. Research Projects Involving Teachers But Not Students.--An analytic subcategory which includes those research projects which do not involve students of the subject matter field actively and substantially in the investigatory process but which are carried on by or do substantially involve members of the faculty who also formally participate in the Organized Teaching function of the institution. The relationship with Instruction in the case of projects placed in this category is still evident but a little more remote or indirect than in the case of projects which involve students. The definition of "teacher" is left to the judgment of the institution. Certainly it should be defined as including professional staff members who are either currently involved in the teaching process or are expected to be involved in the teaching process in the near future. It would rule out persons hired specifically for research positions who have not taught, do not teach, or are not expected to teach in the institution.

C. Research Projects Involving Neither Teachers Nor Students.--An analytic subcategory which includes those research projects which do not involve students of the subject matter field actively and substantially in the investigatory process, and the professional staff of which does not formally participate in the Organized Teaching function of the institution. While there may be a relationship to the Instruction function for projects placed in this category, the fact that persons involved in the project do not teach in the institution and that the project itself does not

> involve students in any way would make it appear that its connection with the Instruction function is certainly quite remote.

It is felt that the use of these subcategories under this major category should give valuable information to the university administration concerning the relationship of the institution's research program to the teaching program.

The analytic subcategory of the above three to which a Research Project is to be assigned would ordinarily be determined once, at the beginning of the project, according to the basic intent and design of the undertaking and would not require reclassification in this regard, even though its life extended over several terms. Thus a project which got under way just before the end of one term and which would not involve students until the subsequent term would nevertheless be classified immediately as a Research Project Involving Students and would retain that identity thereafter unless there were some basic change in the project design and intent that would eliminate student participation entirely.

The classification of subject matter for Research Projects should be identical with that used for Instruction.[3]

The measures of the resources of the institution devoted to environmental units under Research Projects are phrased in the same terms as were used for instructional environmental units. Again, the evaluation of the unit in terms of the portion of the full-time academic load which it represents is based on the assignment value of the research project. A decision on this value should be made by the person actually responsible for making the academic assignments for the organizational unit which has the responsibility for the project. This assignment value would represent the full-time research equivalent of the project in terms of academic staff. Since the research project might be more liable to involve more than one academic staff member than was the case with instructional units, it should be stressed that the full-time research equivalent for each of the academic staff assigned to the project should be recorded.

The third classification of information attaching to the unit is concerned with information which is designed to identify and measure the utilization of the unit. In the case of research, this classification possesses some peculiarities. Obviously, any attempt to quantify the product of a research project or effort would involve so many subjective judgments as to be meaningless for most purposes. Such an evaluation could only be done by the responsible persons in the institution who had special knowledge in the subject matter field with which the project was concerned.

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[3] Supra, pp. 101-102.

Chapter I has established the general principle that this analysis will be concerned with the utilization factors or users of each environmental unit. In the Instruction function these utilization factors represent, for the most part, the persons to whom the service of Instruction is provided. They are the recipients of the service and, in most cases, the purchasers of that service. The case is not quite the same for the function of Research. The purchasers of the service are specific research sponsors unless the project is financed by general institutional income. The recipients of the research service, however, represent a far greater group than merely these research sponsors since the product of research is available to all of society at large and presumably of use to all or selected portions of that society. Thus, the recipients of the service are not enumerable in any way to be used as a utilization factor. Perhaps the most meaningful user of the research environment is the involved academic staff member himself. Once the environment is created, he is indeed a part of it and represents a human resource (and also a dollar input factor) which the institution has assigned to that environment. At the same time, he is the primary user of the environment to produce the research product. Thus, the major measure of the utilization of the unit under all research activities in general and research projects in particular is the number of full-time-equivalent academic staff involved. As will be seen, this is a figure which can be related to the number of full-time-equivalent academic staff involved in the other direct service functions of the institution to give a measure of the institution's allocation of its human resources to its various missions. This measure would apply to all research projects.

For research projects involving students and involving teachers but not students, two other utilization factors are used which help to show still further the relation which those projects bear to the Instruction function. These are the number of teaching staff involved in the project and the number of research registrations involved. Although students may not formally "register" for the project, the term "research registrations" is used here in the same sense as "student registrations" is used in Instruction; i.e., one student in one project. Thus, if the same student were involved in two research projects, he would be counted as two research registrations. These research registrations are classified by degree, field of study, and progress category in the same way as student registrations involved in the Instruction function.

Exhibit 33 gives an example of the classification and description of a hypothetical research project. It will be noticed that the Graduate Research Assistants represent both academic staff and research registrations. In this case they do not, however, represent teaching staff members.

EXHIBIT 33

I. Project: HEW 102
Metabolism of Veillonella Species

Term: Fall Semester, 1965
Location: Main Campus
College: Agriculture
Department: Bacteriology

Relation to Instruction:
A. Involving Students

Subject Matter: Bacteriology

II. Academic Staff Assigned to Project:

Name	Rank	Teacher or Non-Teacher	Total Academic Comp. (Term) Salary	Total Academic Comp. (Term) Staff Benefits	Full-Time-Equivalent	Direct Academic Comp. to This Unit
Hollowell, J.C.	Professor	T	$7,000	$700	.50	$3,850
Manning, A.C.	Grad. Res. Asst. (Student)	N	1,750	---	.50	1,750
Allerton, L.J.	Grad. Res. Asst. (Student)	N	1,750	---	.50	1,750
		Total			1.50	$7,350
			Immediate Support			$4,260

III. FTE Academic Staff: 1.5
FTE Teaching Staff: .5
Research Registrations: 4

Student Classifications			
No. of Student Registrations	Degree	Field of Study and Progress Category	Course Load
3	Doctor's	1716-4	1
1		1716-D2	1

The Analysis of Expenses for Faculty Development Time

The second category of environmental units within the function of Research is that of Faculty Development Time. This has been defined as those units providing compensated "released" time to members of the faculty to be used for informal, nonproject research or professional development or writing for publication, when formally recognized by the institution as a part (or possibly all) of the faculty member's assignment for an instructional period.

One of the most confusing items of diversity between institutions of higher learning is the "full-time academic load." It is defined in many ways in various institutions, but most often it is defined in terms of only one load factor, the teaching load. The other factors are not quantitatively expressed, and thus considerable confusion exists not only between institutions but within the same institution as to what actually constitutes a full load. This confusion is heightened by the use of teaching load to define full academic load. Thus one institution may express its full-time academic load as fifteen hours of teaching and another may state it as nine hours. This does not mean that there is basically any great difference between the courses being taught in the two institutions or that one institution expects the faculty member to devote a greater time to teaching a given course than does the other. The difference is that the "light teaching load" is an expression of an institutional policy which defines the full-time academic load to be made up of a certain teaching load (in this case nine hours) plus an assigned time allotment to faculty members for research and scholarly activities which in this analytic framework is entitled "faculty development time."

This category suggests that Faculty Development Time should represent a positive assignment in an institution of higher learning. Under a system such as this one, where environmental units in Organized Teaching and in the other categories such as Research Projects are given an actual assigned time value, the difference between the total of those assignment values and 100 per cent of 1.0 full-time persons is represented by Faculty Development Time. It is important that the institution should bear this in mind in making policy decisions for the utilization of faculty so that it does represent a positive assignment for this type of activity and not simply a remainder of unassigned time. It does and should represent a positive institutional policy. Thus, in placing an assignment value on Organized Teaching, the responsible persons making the assignment should approach it in terms of the value of that unit if the staff member involved did nothing else but teach courses and prepare for the teaching of those courses. No time for scholarly activity should be considered in making this calculation. If approached in this manner, the actual policy assignment for scholarly activities or faculty development time will result from the analysis.

There may be faculty development time in every academic staff member's load. In some, such as distinguished professors or research professors, it may represent all of their time where no specific research project assignment has been made. The proper use of this category should produce a dimension of the analysis of academic load that does not now exist in most institutions. In addition, leave with pay, or the traditional sabbatical leave, would represent a specific type of Faculty Development Time assignment to a faculty member.

The environmental unit for Faculty Development Time is always the time of the individual faculty member which has been so assigned. The utilization factor for that environmental unit would again be the full-time-equivalent of the faculty member's time which is involved. Exhibit 34 gives the basic information which should be identified for these environmental units.

Unit designation would always be shown as Faculty Development Time. The two general classifications, Resident and Leave with Pay, are the only other items on Exhibit 34 that have not been defined previously. Resident refers to compensated released time to academic staff for Faculty Development Time to be used while resident on the institution's campus. Leave with Pay represents the provision of compensated released time to academic staff for Faculty Development Time to be used away from the campus. Exhibit 35 illustrates the classification of a Faculty Development Time environmental unit in a hypothetical institution.

A question arises as to how the faculty member on sabbatical leave for a year at half pay, as frequently occurs, would be counted in recording the full-time-equivalency of his position for that year. The choice made here is to reflect a .5 FTE academic staff position for him for the leave period, with that .5 position and salary classified as Faculty Development Time-Leave with Pay, even though the individual may be personally engaged in scholarly activities full time for the period.

The Analysis of Expenses for the Provision of Special Research Facilities

The third, and last, category under Research is the Provision of Special Research Facilities. This has been defined as an analytic category of support units providing the operation of facilities that may serve or be utilized by a number of research projects. Examples of this type of activity might be a research farm, a nuclear reactor, an atomic particle accelerator, or a research computation center. The category refers to a facility which has been created to serve as a special environment where

EXHIBIT 34

BASIC INFORMATION FOR ENVIRONMENTAL UNITS IN FACULTY DEVELOPMENT TIME

I. Information Designed to Identify and Classify the Unit

  A. Institutional Designation
    1. Unit designation
    2. First level (lowest) organizational unit
    3. Second level organizational unit
    4. Location
    5. Term
  B. General Classifications
    1. Resident
    2. Leave with pay

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

  A. Evaluation of the Unit as Portion of Full-Time-Equivalent Academic Load
  B. Name of Academic Staff Member
  C. Rank of Academic Staff Member
  D. Total Academic Compensation (Full-Time Rate) for Term
  E. Direct Academic Compensation Allocated to This Unit (A x D)

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

  A. Full-Time-Equivalent Academic Staff

EXHIBIT 35

I. Faculty Development Time
Resident

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Sociology

II. FTE Academic
Staff: .25
Direct Academic
Compensation: $1,540
Immediate Support: 135

Name: Crowley, H.G.
Rank: Associate Professor
Total Academic Comp. (FTE Rate)
for Term:
Salary: $5,600
Staff
Benefits: 560

III. FTE Academic
Staff: .25

specialized types of research may be carried on. The operation of this facility cannot be easily identified with any one research project since several may be making use of it at the same time. If the research projects utilizing the special facility purchase the services of the facility, the expenses of the facility should be reflected in Immediate Support of the specific projects (the Research Projects category) to the extent of the purchase rather than in the Provision of Special Research Facilities. If, however, the special facility does not "sell" its services, all expenses should remain with the facility rather than attempt to make an allocation to projects utilizing it.

The Provision of Special Research Facilities has much in common with the instructional category for the Provision of Professional Training Facilities. The professional training facility, however, always has the characteristic of a marketable by-product and thus a dual service nature. The special research facility does not normally have a marketable by-product and normally serves only Research, or perhaps also Instruction, but Instruction through the research process.

The support unit in this category would be the research facility itself. In identifying these units, it should be stressed that a special research facility exists only when there is a peculiar operating expense attached to the facility. A normal laboratory does not constitute a special research facility. It does carry some operating costs, but these are space maintenance and utility expenses that ordinarily are carried by all other institutional physical facilities and are classified in the plant operation and maintenance category. A nuclear reactor, however, may require special personnel and/or expenses, other than simply space maintenance, which are peculiar to the operation of the reactor. Thus the existence of this type of operating expense would qualify the nuclear reactor as a special research facility.

Exhibit 36 gives the basic information which should be attached to each support unit in this category. Two items in Exhibit 36 call for a specific explanation. First, it should be noticed that there is no direct academic compensation for a special research facility. The compensation for academic staff members carrying on research within the facility would be allocated to the research project upon which they were employed. The only compensation which will be included in expenses allocated to the facility itself is that of the persons concerned with the administration and operation of the facility which would appear as Personal Compensation.

Second, two different utilization units are given. The first is an enumeration of the number of different research projects making use of the facility during the term under analysis. The second concerns the total number of individual academic staff members (not full-time-equivalent) making use of the facility.

EXHIBIT 36

BASIC INFORMATION FOR SUPPORT UNITS IN SPECIAL RESEARCH FACILITIES

I. Information Designed to Identify and Classify the Unit

   A. Institutional Designation
      1. Unit designation
      2. First level (lowest) organizational unit
      3. Second level organizational unit
      4. Location
      5. Term

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

   A. Number of FTE Staff
   B. Professional Compensation
   C. Supplies and Expense

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

   A. Number of Research Projects Utilizing the Unit
   B. Number of Individual Academic Staff Members Utilizing the Unit

Both of these measures are similar to the number of students involved in a professional training facility.

Exhibit 37 gives an example of the classification and description of a hypothetical special research facility.

EXHIBIT 37

I. Special Research Facility
Van de Graaff Accelerator

Term: Fall Semester, 1965
Location: Main Campus
College: Liberal Arts
Department: Physics

II. FTE Staff: 3.5

Personal Compensation:	$8,625
Supplies and Expense:	1,165

III. Number of Research Projects Utilizing Facility: 6
Number of Academic Staff Utilizing Facility: 13

CHAPTER X

THE ANALYSIS OF EXPENSES FOR SERVICES TO THE PUBLIC

The third major function of institutions of higher learning is that of Services to the Public. This function has been defined as including those educational activities of the institution which are neither Instruction nor Research as defined and which primarily serve a clientele other than the institution's own staff and degree-credit students.

As will be noted, this definition is to a large extent one of exclusion. This is because Services to the Public is the most difficult of all of the basic functions of higher education to define precisely. The functional classification is not new to this analysis. Almost all attempts to classify the functional activities of institutions of higher learning for analytic purposes have included a function of "service to the public," "public service," "extension," or "extension and public service." All of these have served to some degree as a catch-all for activities of institutions of higher learning which are educational in nature but which do not fall easily within the instruction or research classifications. One of the difficulties which makes this function difficult of precise definition is the extremely varied nature of these activities. Institutions of higher learning, because of their peculiar characteristic of being storehouses of knowledge and of persons capable of transmitting and applying that knowledge, are called upon by society to perform a vast variety of tasks which qualify neither as teaching nor research in the strict sense. In addition, they are called upon to serve individuals and segments of society beyond the confines of their regular student body. These activities range from things which are clearly recognizable as teaching to certain types of regulatory activities which have little relationship to the normal functions of a university but exist in that setting because of the specialized personnel and facilities to be found there. Since an institution of higher learning is a public service institution, any activity falling within this broad range may quite legitimately be carried on.

In this analysis, therefore, the definition of Services to the Public has two facets. One of these is one which does define by exclusion. It is those educational activities which do not fit into the definitions of Instruction or Research. The second facet concerns its clientele. These activities must be designed to serve a clientele other than the institution's own staff and degree-credit students. Here Instruction, by definition, is designed to serve the institution's degree-credit students. The functional classification of Services to the Academic Community also is defined to include any activities primarily designed to serve the institution's own staff and degree-credit students. The General Support function is likewise designed to support all of the other functions and thus serve the institution's own staff and degree-credit students in the process of furnishing this support. Services to the Public, however, are activities which primarily serve someone else. Emphasis here should be on the word "primarily." Degree-credit students and institutional staff may be served by public service activities. They may take non-credit courses and they may participate in workshops and institutes. The main purpose of the services, however, is to serve members of the public who are outside of this institutional group.

For purposes of analysis, the function has been subdivided into three analytic categories:

1. Organized Teaching of Non-Credit Courses
2. Dissemination of Knowledge through Other Than Organized Teaching
3. Regulation and Inspection

From the foregoing discussion, it becomes obvious that many of the educational activities involved in Services to the Public are instructional in the broad sense. To include them under the category of Instruction, however, would defeat the purpose of institutional analysis by obscuring a major and important element of diversity which exists between institutions of higher learning. Historically, these types of activities have always been classified outside of Instruction. It is necessary, then, to draw some sort of a line to divide the instructional activities in Services to the Public from the instructional activities which are classified under Instruction itself.

Originally, this line was drawn on a geographical basis. Thus the divisions made were "resident instruction" and "off-campus instruction" or "extension." In the beginning, this was a reasonable division. It likewise became reflected in the organizational structure of the institution. "Extension Divisions" became the administrative arm of the institution which carried on off-campus instruction. The extension division was responsible for the instruction of students which was carried on in towns and cities removed from the university campus. Over the years, however, the division on a geographical basis became much less meaningful. Many activities administered by extension divisions--institutes, conferences, and workshops--actually took place on the campus itself. Extension divisions often found themselves offering evening classes outside of regular instructional hours on the regular campus. New activities sprung up which took place on the campus but were related to persons off the campus such as community television and radio programs and scholarly journal publications. Other activities took place off the campus--consulting services and school surveys--but were administered by instructional departments rather than extension divisions.

This analysis has chosen to draw the line in another manner. Since the concept of this analysis is that of an institution of higher learning as a service institution, a line is here drawn on the basis of the persons being served. Instruction is defined as the methodical imparting of knowledge or the teaching of degree-credit courses. This activity is common to all institutions of higher learning. The question of the location of the instructional effort is an important sub-classification of environmental units in Instruction since it is recognized that location, off or on the campus, can have considerable effect upon the resources devoted to the unit. Services to the Public, as far as the broad instructional activities included therein go, concerns the methodical imparting of knowledge to students in teaching situations which do not carry credit towards a degree offered by the institution regardless of where the activity takes place. Thus, Services to the Public are defined, in part, as activities which serve a clientele other than the institution's own staff and degree-credit students.

The Analysis of Expenses for Organized Teaching of Non-Credit Courses

The category of Organized Teaching of Non-Credit Courses is concerned with those environmental units which provide for the instruction of members of the general public in organized teaching situations which do not carry credit towards a degree offered by the institution and are not designed to enable students to qualify for degree-credit courses. This would include non-credit courses, short-term institutes, workshops, and conferences, and courses in military training whether credit is granted for military courses or not. It would not include remedial courses given on the campus which would be considered as courses designed to enable students to qualify for degree-credit courses.

The inclusion of courses in military training within this category requires a little explanation. Military training, or ROTC, is an activity common to many institutions of higher learning and, of course, an integral part of all land-grant colleges and universities. Courses in military training may or may not carry institutional credit, depending on the policy of the particular institution in which they are offered. Where they do carry institutional credit, it is always additional institutional credit. For example, the requirements for the securing of a bachelor's degree in liberal arts might be 120 credit hours for girls and 124 credit hours for boys, the additional four credit hours being represented by military training. When analyses of total student credit hours, costs, faculty loads, and the like are carried on in institutions, especially for interinstitutional use, it is often necessary to adjust for military training credits in order to remove distortions. Quite often they are eliminated entirely in such analyses. To avoid this problem, this analytic procedure proposes to classify these courses under Services to the Public as Organized Teaching of Non-Credit Courses, regardless of the fact that the institution may offer a token credit for the course. This approach can be defended logically since the inclusion of military training can be looked upon as not necessarily serving the academic ends of the institution but as an important public service, being performed for the United States government.

The analysis of Organized Teaching has been discussed at considerable length in Chapter VIII.[1] Since the Organized Teaching in this case differs from that under Instruction only in the respect of whether or not credit is offered for the courses being taught, there is no reason to analyze Organized Teaching of Non-Credit Courses in a fashion different from that of degree-credit courses. Thus the environmental units involved would be the same--the course, the course division, or the section, depending upon whether or not the course has more than one division, section, or combination of both or, in the case of certain types of course organization, the individual student or a group of students. The identification of basic information to be attached to those environments would also be the same as the information set forth in Exhibit 15 of Chapter VIII.[2]

Only a few minor differences would exist. First of all, obviously environmental units in Organized Teaching of Non-Credit Courses would never contain any entries for number of credits. The number and length of contact periods should still be recorded. The subject matter of non-credit courses is extremely varied among institutions of higher learning. Because of this factor, again no attempt is made to make a general classification. Rather the institution is requested to identify the subject matter being taught with each environmental unit. No level of instruction would be used since non-credit courses make up the environmental units and, since the students are most often not degree-credit students, the student registration would not need to be classified by degree, field of study, progress category, or course load.

Many non-credit organized teaching situations are made up of short-term institutes, workshops, and conferences rather than standard term length courses. In such a case, the length of the term should be recorded, perhaps in days, and the total number of term hours for such irregular instructional term should be counted and recorded. The characteristic of organization would still be group instruction but would be in the subcategory of Other

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[1] _Supra_, pp. 93-119.

[2] _Supra_, pp. 96-97.

Instructional Arrangements with the arrangement identified. Exhibits 38 and 39 give examples of the classification of environmental units in Organized Teaching of Non-Credit Courses for a hypothetical institution. Exhibit 38 is concerned with a "normal" course and Exhibit 39 with a short-term workshop. In the cases of workshops such as the assessors' workshop shown in Exhibit 39, the personnel working in the workshop are quite often persons brought in especially for that purpose. As such, their full-time-equivalent should be determined but, since they would hold no regular rank in the institution, the rank is shown as "none."

The Analysis of Expenses for the Dissemination of Knowledge through Other Than Organized Teaching

As a storehouse of knowledge, one of the basic functions of the modern institution of higher learning is to make that knowledge available to the general public. Some of this is done through the teaching of organized groups, either in regular classes or in group meetings which might be classified as workshops, conferences, or institutes. These activities have been categorized under Organized Teaching and the environmental units identified therein. In other cases, the knowledge of the college or the university is carried to the public in a wide variety of ways. One of the oldest and best established of these activities is the agricultural extension service in the land-grant colleges and universities. Here, through the medium of county agricultural and home demonstration agents the agricultural knowledge and resources of the institution are taken out to the various communities of the state. Many institutions operate radio and television stations. Some of the uses of these stations can be classified as Organized Teaching since they form an integral part of the teaching process. Other programs, however, are used to carry the intellectual and cultural resources of the institution to the general public at large.

All of these activities would be classified in this analysis under the category of Dissemination of Knowledge through Other Than Organized Teaching. This category has been defined as the environmental units providing a whole range of activities and services of a "public service" nature that have accreted to institutions of higher learning but which have as a common characteristic the dissemination of knowledge by the professional staff of the institution through some medium, other than Organized Teaching as previously defined, to some segment of the public. Although an attempt to list all of the possible Services to the Public that might be carried out in this manner would undoubtedly be fruitless, some of the more common would include:

1. Agricultural and Home Demonstration Extension
2. Community TV and Radio
3. University Press

EXHIBIT 38

I. Course: Art 53
Jewelry Making

Term: Fall Semester, 1965
Location: Evening College
Department: Adult Education
Division: General Extension

Contact Periods
Per Week:
Course: 2

Term Hours:
Course: 16.7

Characteristic of
Organization:
Course: Group Instruction
Laboratory

Subject
Matter: Jewelry Making

II. Teaching Load:
Policy: .20
Assignment
Value: .20
Actual Value
Current Term: .20
Direct Academic
Compensation: $1,100
Immediate Support: 235

Name of Teacher: Rickert, M.L.
Rank: Associate Professor
Total Academic Comp. (FTE Rate)
for Term:
Salary: $5,000
Staff
Benefits: 500

III. Student Registrations:
Optimum Size: 28
Actual: 18

EXHIBIT 39

I. Assessors' Workshop

Term: Fall Semester, 1965
Location: Main Campus
Department: Community Service
Division: General Extension

Contact Periods
Per Week:
Not regular term
3 days intensive

Term Hours: 15

Characteristic of
Organization:
Group Instruction
Other Instructional
Arrangements
Workshop

Subject
Matter: Property Tax
Assessment

II. Academic Staff Assigned to Unit:

Name	Rank	Total Academic Comp. (Term) Salary	Staff Benefits	Full-Time-Equivalent	Direct Academic Comp. to This Unit
Hammond, R.L.	None	$5,000	$---	.10	$500
Coulter, F.L.	Asst. Prof.	4,000	400	.10	440
	Total			.20	$940
		Immediate Support			$650

III. Student Registrations:
Optimum Size: 60
Actual: 43

4. Scholarly Journal or Magazine Publication
5. Elementary and Secondary School Survey
6. Consulting Services

Needless to say, for such a variety of activities, there would be a corresponding variety of environmental units and utilization factors. For agricultural and home demonstration extension, the environmental unit would be the office and activities of the county agent and the home demonstration agent. The utilization factor would be the number of individuals served by that office. For a television or radio activity, the environmental unit would be the program or, more precisely, the program series. The utilization factor would be the viewers or listeners. Unfortunately, to the extent that the number of these viewers or listeners could not be estimated with any great degree of precision, the analysis would have to be content with the total resources devoted to each program or program series. For the university press, the environmental unit would be the publication itself--the book or pamphlet, as the case might be. The utilization factor would be the number of persons to whom each publication was distributed and/or sold. For a scholarly journal or magazine publication, the environmental unit would be the journal or magazine itself and the activities that go into its publication, and the utilization factor would be the number of persons receiving the journal or magazine. Elementary and secondary school survey and consulting services have a great deal in common. The environmental unit would be each individual survey or consultation performed. The problems involved in identifying a utilization factor would bear great similarities to the problems which are presented in trying to measure the utilization or service recipients of Research. The people utilizing the results of a school survey, for example, would be the various citizens and persons concerned with the school which was surveyed, but they would not be easily subject to quantification. Therefore, a close measurement of the resources devoted to this activity will present the best analysis and the academic staff would serve as both a resource and a utilization factor.

Exhibit 40 presents the basic information which should be identified with each environmental unit in this category. This information is very similar to that identified with other environmental units and support units in this analysis. The unit designation should be extended to also indicate the type of unit which is disseminating the knowledge, e.g., whether it is a consulting activity or a publication activity or a communication activity of a radio or television nature. Since these activities vary considerably within and among institutions, the sixth designation would call for a brief description of the actual activities of the unit. This would, in effect, be the "subject matter" of the unit. The variety of utilization factors has been discussed previously. Thus it is impossible to stipulate any specific utilization factor in Exhibit 40. Instead attention is drawn to the approach which should be followed in determining what they should be.

EXHIBIT 40

BASIC INFORMATION FOR ENVIRONMENTAL UNITS PROVIDING DISSEMINATION OF KNOWLEDGE THROUGH OTHER THAN ORGANIZED TEACHING

I. Information Designed to Identify and Classify the Unit

- A. Institutional Designation
    1. Unit designation and type
    2. First level (lowest) organizational unit
    3. Second level organizational unit
    4. Location
    5. Term

II. Information Designed to Identify and Measure the Resources of the Institution Devoted to the Unit

- A. Evaluation of Unit as Portion of Full-Time Academic Load
- B. Names of Academic Staff Assigned to This Unit
- C. Rank of Academic Staff Assigned to This Unit
- D. Total Academic Compensation (Full-Time Rate) for Term
- E. Direct Academic Compensation Allocated to This Unit (A x D)
- F. Immediate Support Allocated to This Unit

III. Information Designed to Identify and Measure the Utilization of the Unit and Its Resources

(This would depend on the unit being analyzed and the type of service being offered. An attempt should be made to quantify the actual use of the unit by persons being served. If this is not possible, then the full-time-equivalent academic staff devoted to the resource can serve as a utilization factor.)

Exhibits 41 and 42 give examples of the classification of environmental units within this category in a hypothetical institution.

The Analysis of Expenses for Regulation and Inspection

The third category in the function of Services to the Public is that of Regulation and Inspection. It is defined as containing the environmental units providing non-instructional, non-research, routine services for government or industry or other segments of the public which are required for the regulation and inspection of products, persons, or organizations.

Because of its specialized physical facilities and the professional knowledge of its staff, an institution of higher learning is often called upon to perform services which are not strictly educational but rather fall into the realm of regulation or inspection. This is especially true of state institutions. Examples of these types of services are professional licensing, fruit and vegetable inspection, soils analysis, and a state chemical laboratory. These activities may be performed by staff members of the institution as a part of their academic load, by a special regulatory or inspection staff of the institution employed for that purpose, or by a state staff which merely uses the facilities of the institution. In each case the environmental unit to be identified would be the inspection activity itself--generally the organizational unit performing the service. The full-time-equivalent academic staff time and compensation and the immediate support assigned to the unit should be accounted for the same as with any other unit. The utilization factor would, in each case, be the actual number of service operations performed, i.e., number of licenses issued or number of inspections performed.

EXHIBIT 41

I. Program: The Brother's War

Term: Fall Semester, 1965
Location: Main Campus
Department: Educational Television

Historical program covering Civil War
12 one-half hour programs--
8:30-9:00 p.m. on Wednesday
from Sept. 13 to Nov. 29

II. Academic Staff Assigned to Unit:

Name	Rank	Total Academic Comp. (Term) Salary	Total Academic Comp. (Term) Staff Benefits	Full-Time-Equivalent	Direct Academic Comp. to This Unit
Blodgett, F.C.	Asst. Producer	$3,000	$300	.20	$ 660
Armin, C.T.	Asst. Prof.	4,000	400	.10	440
	Total			.30	$1,100
	Immediate Support				$2,820

III. Estimated audience:
33,000 per program

EXHIBIT 42

I. County Agent's Office

Term: Fall Semester, 1965
Location: Albany County
Department: Agricultural Extension Service

II. Academic Staff Assigned to Unit:

		Total Academic Comp. (Term)		Full-Time-Equivalent	Direct Academic Comp. to This Unit
Name	**Rank**	**Salary**	**Staff Benefits**		
Irwin, M.G.	County Agent	$5,000	$500	.375	$1,710
James, M.L.	Asst. County Agent	3,000	300	.375	1,238
Lacey, E.F.	Home Dem. Agent	3,500	350	.375	1,444
	Total			1.125	$4,392
		Immediate Support			$3,225

III. Persons Served: 1,878

CHAPTER XI

THE ANALYSIS OF EXPENSES FOR SERVICES TO THE ACADEMIC COMMUNITY

An institution of higher learning constitutes a community in and of itself. Students, staff, and representatives of the general public who are being served by the institution on a regular or an intermittent basis are, in varying degrees, members of this academic community. These persons, like members of any other community, have certain personal individual needs which must be met. In social communities outside of the institution, these needs are answered by many agencies--the home, the church, and various service enterprises operating within the community. When students, and to a lesser degree other persons, come to the academic community, these same needs remain. To the extent that they cannot be met elsewhere, it is necessary for the institution to supply these personal individual services to its students and staff. The students--and sometimes the staff--must be housed, they must be fed, they must be provided with some means of recreation and entertainment. They must have a place to turn if they are in financial difficulties or if they are in social difficulties. At least some degree of control must be exercised over their activities. In some cases these services are purchased by the user; in others they are purchased for the user by some interested outsider; and in still others they are considered important enough to be subsidized by general institutional income.

This whole range of personal individual services has, in this analysis, been included within the function of Services to the Academic Community. They have been defined as constituting those activities, facilities, organizations, and enterprises within institutions of higher learning which provide services which are not educational in themselves but which have as their purpose the fulfillment of personal individual needs of members of the academic community. Such services are provided directly to individual students and staff and occasionally or incidentally to members of the general public. These services are ancillary or expeditious rather than essential to the primary educational functions.

While Services to the Academic Community are not educational in themselves, they are designed to be used by persons who are engaged in the educational process. As a result, there is an educational flavor about them and their relationship to education is, or should be, always kept in mind by those responsible for providing such services. Thus the personal or social-psychological counseling carried on by an institution has always in mind the fact that the problems with which it deals are those which arise out of an educational situation and the answers which it seeks should be related to the educational advancement of the student being counseled. Financial aid is given as an aid to enable the student to pursue or continue his education. Housing, as furnished, should always take account of the fact that a dormitory is not simply a place to live but a place to live and study as a part of an academic community.

The function of Services to the Academic Community has been divided into three major categories:

1. Student Development
2. Financial Aid
3. Care, Subsistence, and Recreation

The Analysis of Expenses for Student Development

Student Development has been defined as including those expenses incurred in the provision of support units which are established to encourage or stimulate development of aspects of the individual student other than the purely academic or intellectual.

These are activities which have always been carried on by institutions of higher learning. In recent years, however, they have grown at an accelerated rate. The counseling and guidance of the student, not only in his academic program but with his personal problems of adjustment to the institution and the world at large, has become a recognized activity of colleges and universities. There are three support units in this category:

1. Social-psychological counseling
2. Religious training or activities
3. Vocational testing and placement

Social-psychological counseling refers to the personal guidance and counseling given to students in the institutional situation as distinguished from the academic counseling which is included as a part of the Instruction function. This activity may be carried on in an organized counseling and guidance center, in the residence hall through resident counselors or advisors, or by persons within the office of the dean of men or dean of women who are specifically charged with this function. It should be carefully distinguished from pure academic counseling which is concerned only with the student's selection of program and progress in academic work. There may be a very close link between academic counseling and personal counseling. Quite often, academic counselors do help students with their personal problems. If such is the case, no attempt should be made to divide this responsibility but all should be handled through the primacy of purpose rule which would classify the activity as academic counseling. Generally speaking, social-psychological counseling exists only where persons are specially charged with this responsibility. Regardless of the number of persons or locations where this activity is carried on, all of the personal compensation expenses should be charged to the single support unit of social-psychological counseling.

As with other analytic units, the term being analyzed and the administrative organization or organizations responsible for the unit should be attached to it. Amounts of money for personal compensation and for supplies and expense and number of FTE staff should be attributed to the unit as well. The general administration of this activity (dean of students, dean of men, and dean of women) would be shown under General Administration[1] rather than within social-psychological counseling. If, however, the dean's office has a person specifically assigned to this responsibility, his salary and other expenditures attached to his work would become part of this unit.

There are two utilization factors for the support unit of social-psychological counseling. One refers to the actual counseling workload itself and should reflect the number of students counseled during the term. The second is the more universal one of total student courses for the institution. The purpose of using total student courses as a unit is to give the user of the analysis some idea of the emphasis placed upon social-psychological counseling in that institution in relation to the total size of the institution.

Religious training or activities is most applicable to private institutions but may appear in public institutions as well. It would include the salaries and expenses attached to the office of any religious counselors and any expenses attached to institutional chapel programs and the total FTE staff in both cases. Since this unit serves the entire institution, the utilization factor would be the total number of student courses in the institution.

Vocational testing and placement is concerned with the expenses of vocational testing programs and student placement offices. Psychological testing programs would come under social-psychological counseling. Again, all expenditures for these purposes should be brought together within this one support unit and divided between amounts for personal compensation and amounts for supplies and expense. In each case the total number of full-time-equivalent employees should also be shown. As in social-psychological counseling, there are two or more utilization factors for these activities. The first would relate to the activity itself--the number of students tested and the number of students placed, as the case might be. The second would be the total number of student courses to show the total extent of the activity in relation to the size of the institution.

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[1] Infra, p. 177.

The Analysis of Expenses for Financial Aid

The second category of Services to the Academic Community is concerned with student financial aid. This has been defined as support units involved in providing students with financial assistance for meeting their expenses. This category is further subdivided into two subcategories:

1. The operation of student financial aid offices and services. This encompasses all expenses incurred in the operational administration of any program which seeks to help students with financial problems. It would include financial counseling, the administration of loan and scholarship programs, and student employment office expense. It would not, however, include the actual payment of money, such as scholarship grants to the student.

   The support units within this category would include any institutional organizational unit or office or person within an office carrying the responsibility for any such administration. The total personal compensation and number of persons engaged in these activities should be identified for each unit and the total supplies and expense. Utilization factors would be two in number--(a) the number of students processed in the case of each activity and (b) the total number of student courses in the institution.

2. Payments made directly to or constructively for students. This subcategory includes only "free grants," not wages, salaries, or other compensation paid in consideration for services rendered by the student to the institution. In any one college or university, there might be several varieties of these free grants: scholarships, fellowships, tuition fees remitted or waived, and cash prizes or awards. Each institutional category of such grants would constitute a support unit in itself. Thus scholarships might be one unit, tuition remissions another unit, and cash prizes still another unit. There would be no personal compensation in this unit since any administration involved would be shown under subcategory (1). The expense shown would be the total amount of grant payments made to students in each case. The

utilization factors would be the number of students receiving each type of free grant, with identification of all such students by field of study and progress category. In addition, as a measure of the total effort in free grants in relation to the size of the institutional student body, the ratio of dollars for each variety of free grant to total student courses in the institution should be developed.

The Analysis of Expenses for Care, Subsistence, and Recreation

The third category in Services to the Academic Community is made up of support units which provide for the bodily needs, the physical care, and the entertainment and recreation of students and/or staff (and occasionally or incidentally of the general public) in order that they may be adequately or conveniently sustained for participation in the educational activities of the institution. These activities are implementary or auxiliary to the direct educational functions of the institution. Indeed, many of them constitute the activities that traditionally have been classified as "Auxiliary Enterprises."

In this analysis the term "auxiliary enterprises" has been abandoned, because what was originally a functional classification has, with use, come to describe an operation with a peculiar means of financing--namely, one that could, at least, be self-supporting and for which it is necessary for the institution to establish some sort of a selling price for services. This peculiarity still exists in most of these activities. However, the function of Care, Subsistence, and Recreation may be operated either as a self-supporting activity or as a subsidized activity on the part of the institution. A good example of this is concerned with the provision of student health service. In some institutions student health service is supported entirely by the institution either through general funds or through a nominal student health fee and not classified as an auxiliary enterprise. Other institutions, mainly those with a "dormitory campus" widely separated from any major hospital facilities, operate a student health service including a full-scale hospital to handle student needs. In these cases the hospital, for pricing and other purposes, is often operated as and classified as an "auxiliary enterprise." In both cases the function or service being performed is exactly the same. This analysis would carry both services in the same place under Care, Subsistence, and Recreation. The analysis of income when compared with the analysis of expenses would provide the information necessary to establish a selling price for the service rendered.

The support units for Care, Subsistence, and Recreation would be the individual activities themselves. A suggested, though not necessarily an exhaustive list would include:

1. Housing
2. Food Service
3. Stores and Shops (Bookstore, etc.)
4. Laundry
5. Vending Machines
6. Student Union or Center
7. Health Service or Infirmary
8. Parking Lots and Structures
9. Airport
10. Intercollegiate Athletics
11. Intramural Sports
12. Student Organizations and Activities (student government, campus newspaper, yearbook, class activities, dramatics, glee club, band, orchestra, choral union, social activities)
13. Concerts, movies, lectures, professional theatre

Each one of these activities could provide a useful support unit in itself. An institution might wish to break them up into smaller support units showing, for example, each individual dormitory instead of grouping them all under one housing unit. In each case, total personal compensation and number of full-time-equivalent employees should be attributed to each unit as well as total expenditures for supplies and expense. Most of these activities would have two or more utilization factors. One would be total student courses in the institution in order to have some measure of the size of the activity in relation to the size of the institution. The other would relate to the activity itself; e.g., number of students housed, number of meals served, total sales in shops, etc.

It will be noticed that the support units or subcategories under Care, Subsistence, and Recreation contain many activities that have been found elsewhere in the analysis. The food service may also operate as a professional training facility for home economics. The student union or center may contain a hotel facility which is used as a special training facility in a hotel management curriculum. The airport has been listed both here and under Professional Training Facility. Dramatics also appears in both places. Here again the rule of primacy of purpose must be relied upon. Certainly no one would think that the entire food service for a large university had been established purely as a professional training facility for home economics. It may be that a special cafeteria is designated as this training facility. If that is true, then that particular portion of the food service effort would be shown under Instruction as a professional training facility. If this is not the case, then the primacy of purpose would say that the entire activity should be classified under Care, Subsistence, and Recreation. The same is true for the other multi-purpose services and activities included within this category.

CHAPTER XII

THE ANALYSIS OF EXPENSES FOR GENERAL SUPPORT

The fifth and last service function of an institution of higher learning is that of General Support. This function includes those activities supporting, rendering services to, or exercising responsibility for two or more of the other four functions.

The first thing to point out about these General Support activities is that the "clientele" for whom the services are performed are the other four functions. A basic part of the definition for the inclusion of activities within this function is that they must support two or more of the other functions. If a supporting activity is related to only one of the other functions, it would not be found in the General Support category but would be placed in the functional category which it serves. A good example of this is found in the categories of Admissions and Registration and Allied Activities within the function of Instruction. The services furnished by these activities are not instructional in themselves but are in direct support of the instructional program by admitting students into the institution, facilitating their division into courses and sections, and recording the results of the teaching program. However, since the only function served by these activities is Instruction, these particular support activities are placed with the instructional function itself. The General Support activities serve more than one of the other functions and thus must be placed in a more general category.

The expenses of the General Support activities constitute a major portion of those expenses of operation frequently viewed as "overhead" or "indirect." As has been stated at more length earlier in this study, no attempt is made in this analysis to allocate these "overhead expenses" to the direct functions.[1] Again, such allocation is not to be discouraged on the part of individual institutions. It is, however, felt that an intimate knowledge of institutional operation is necessary to even begin to make any sort of a meaningful allocation, and any recommendation of a standard system to be used by institutions at large would only serve to intimate to the user of the analysis that some sort of cause and effect relationship exists between various direct activities and overhead costs where no real proof of such a causal relationship actually has been demonstrated.

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[1] Supra, pp. 59-60.

With the possible exception of Learning Resources, which are generally more closely related to Instruction and Research than the other two functions, all of the activities placed in General Support are supporting, rendering services to, or exercising responsibility for all four of the other functions. Thus it is only proper that these activities should be shown in a position which clearly demonstrates their relationship to all of the other functions rather than included with a classification which might include only Instruction, Research, and Public Service.

The support units within each of the analytic categories of General Support are specified in this analysis. This list of support units has attempted to take into account all such support activities carried on by institutions of higher learning. However, it is not necessarily all-inclusive and, if a General Support activity is carried on which does not clearly fit into any one of these support units, the institution would have to add the support unit to accommodate the activity. In each case there should be identified with the support unit the total expenses of that unit, allocated between Personal Compensation and Supplies and Expense. As a further indicator of institutional resources devoted to these support activities, the total number of full-time-equivalent employees in each unit should also be shown.

For each of the support units in General Support there are at least two major possible approaches to analysis. On the one hand, viewed as a part of a total analysis of institutional operation and as a unit within a function which is furnishing General Support to the other functions of the institution, each support unit and the category including these support units should be related in some way to the other service functions of the institution. At the same time each support unit carries its own utilization or workload factors for the peculiar type of work which is being carried on. The identification and evaluation of these latter support unit workload factors is a highly specialized task. The analysis of library operations in relation to books processed and number of circulations is a study in itself. Within Plant Operation and Maintenance, there are many different factors for different types of activities. Motor pool expenses are related to number and mileage of vehicles. Care and Cleaning of Grounds is related to acreage. Routine Care and Cleaning of Buildings and Maintenance of Buildings are related to square footage, modified by the age of the building. Utilities are related to many special indicators. The procedure outlined here does not include the development of analytic factors and standards of this type; they are considered rather to be the proper subject of specialized studies within the specialized fields represented by these activities. Such studies have been and should be undertaken by persons specifically experienced in those fields. However, this procedure does include the development of certain measures of relationships between the General Support activities and the other four functions of the institution. These relational ratios are indicated following the discussion of each of the five categories of the General Support function, which are:

1. Learning Resources
2. Plant Operation and Maintenance
3. Administration
4. Promotion and Development
5. General Institutional Expense

The Analysis of Expenses for Learning Resources

One of the oldest activities of a college or university is the operation of a library. Indeed, it would be difficult to conceive of an institution of higher learning without a library, or at least access to a library. As a result, almost every functional classification of institutional activities has included a function of "Library." And yet "library" is not a functional title in itself. The library is a physical place within which certain activities are carried on. These activities are, of course, the classifying and storing of knowledge in book form as a resource to be used by students in the carrying on of their educational activities. This storehouse of knowledge is also used by research workers to seek out information for research purposes and quite often by persons engaged in serving the general public.

Although the library is by far the largest and best established of this storehouse type of activity, there are other activities on the campus which are very similar in nature. A museum also stores knowledge and is used by students and research persons and others, not in book form but in the form of physical exhibits. An audio-visual department stores motion pictures, slides, film strips, tapes, records, and other communication aids which can be used by students and faculty alike.

The library also often serves another purpose. It may be a facility to which students and faculty alike can come to use the books. It is then more than merely a book barn; it is also a place especially planned and fitted for the purposes of study. Today there are other physical facilities especially designed for these purposes on the normal campus in addition to the library. The language laboratory is such a facility; a teaching machine, wherever it may be located, is such a facility; and a radio or television station serves as a like facility, only, in this case, the facility is used to take the knowledge out to the student, wherever he may be.

In many institutions, these activities which bear similarities to the library have actually been placed under the control of the library and thus find their way into the library classification. In other cases, however, they are not under the organizational control of the library and thus never appear under that classification. This analysis proposes a more all-inclusive title for this type of activity, the category of Learning Resources. The Learning Resources category is a category of support units which provide physical, mechanical, electronic repositories or processes for the storing, manipulation, or translation of information or knowledge. Support units within this category include:

1. Library
2. Museum
3. Audio-visual Aids (motion pictures, slides, film strips, tapes, records, charts, etc.)
4. Language Laboratory (carrels for program practice)
5. Automated Information Storage and Retrieval Systems
6. Radio and Television Stations
7. Teaching Machines

Although the library is in most institutions by far the most prominent of these Learning Resource activities, it is only one of many. All should be shown here under this category regardless of organizational position within the institution. Certain of these units need special clarification:

> Language Laboratory. This refers to a physical language laboratory where carrels are made available to students and students may come at any time, as to a library, and listen to programmed tapes for language practice. Special assignments to these carrels may be made by instructors. It does not refer to actual laboratory instruction in a language which would be carried under the laboratory form of course organization within the Organized Teaching category of Instruction.
>
> Radio and Television Stations. This refers to the expenses incurred in the actual administration and operation of the station itself. This will include the director of the station, the engineers, the cameramen, and all expenses incurred in operating the equipment. The programs produced by the stations are environmental units, either in Instruction in the case of programs presenting degree-credit courses, or Services to the Public in the case of programs which are going out to the general community at large. The operating cost of the station would not be part of the cost of these environmental units. The expenses connected with these operating costs are the expenses of the support unit of the radio or television station. The environmental unit would carry only the academic compensation expense of the teacher of the course and the producer of the program (even though that producer would probably be on the staff of the television station) and the direct special expenses connected with the program (rental of

film, honorariums for special speakers, charges for the procurement of special materials).

Teaching Machines. Teaching machines would become a support unit within Learning Resources when an institution has a special center for teaching machines where various programmed materials can be put at the disposal of the students and faculty desiring to use them. This would include such operations as the "quest stations" at some of the newer universities.

While Learning Resources within an institution are made use of by persons within all of the other functions, they are undoubtedly most intimately related to the functions of Instruction and Research. The following relational ratios are recommended:

1. $ expended for Learning Resources per FTE academic staff entire institution

2. Ratio of:
   $ expended for Learning Resources, to:
   $ expended for compensation of academic staff entire institution

3. Ratio of:
   $ expended for Learning Resources, to:
   $ expended for Instruction and Research

4. Ratio of:
   $ expended for Learning Resources, to:
   $ expended for Instruction, Research, Services to the Public, and Services to the Academic Community

5. $ expended for Learning Resources per student course entire institution

The Analysis of Expenses for Plant Operation and Maintenance

The category of Plant Operation and Maintenance has been defined as containing support units for operating and maintaining the normal physical locus for the educational activities of the institution. These support units within Plant Operation and Maintenance would be as follows:

1. Care and Cleaning of Grounds, Walks, Streets
2. Maintenance and Repair of Buildings
3. Routine Care and Cleaning of Buildings
4. Provision of Utilities--Heat, Light, Power, Water, Sewer

5. Protection of Plant and Persons--Police and Watchmen; Fire Protection; Fire Insurance
6. Transportation Services--General Trucking; Central Motor Vehicle Service; Campus Bus Service
7. Rental of Space
8. Plant O & M Administration

All expenses for Plant Operation and Maintenance should be assigned to these support units. The question as to the rule concerning the charging of expense items to central plant operation and maintenance accounts as opposed to operating departmental accounts was discussed at some length in Chapter II.[2]

The operation and maintenance of the physical plant is an activity which serves the entire institution. Thus it properly belongs as a General Support category since it most certainly is supporting and serving the other four service functions. These functions would constitute the utilization factors for each of these support units. As measures of these utilization factors the following relational ratios are recommended:

1. $ expended for Plant Operation and Maintenance per FTE academic staff entire institution

2. Ratio of:
   $ expended for Plant Operation and Maintenance, to:
   $ expended for compensation of academic staff entire institution

3. Ratio of:
   $ expended for Plant Operation and Maintenance, to:
   $ expended for Instruction, Research, Services to the Public, and Services to the Academic Community

The Analysis of Expenses for Administration

The central administration of an institution of higher learning is responsible for the operations of the entire institution. One question that always arises in analyses is where to draw the line between central or general administration and administration of individual activities or functions. In this procedure this line has been drawn just below the chief administrator in each of the major functions. The chief administrative officer of each of the direct service functions is looked upon as part of the central administration, serving as the representative of the president in each one of these areas. In other areas such as the office of the president himself, the area of business and financial administration, and the area of personnel administration, this problem does not exist.

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[2] *Supra*, pp. 46-47.

Administration has been defined as a category which includes support units providing the top level of general supervisory administration of the operations of the institution. The support units within the category are:

1. Governing Board
2. Chief Administrative Officer or Officers (President, General Vice-President, Dean of Administration)
3. Academic Administration (Academic Vice-President, Dean of the Faculty)
4. Business and Financial Administration and Services (Fiscal Vice-President, Comptroller, Business Manager, and staffs)
5. Research Administration (Vice-President for Research, Director of Research)
6. Personnel Administration and Services (including recruitment expenses and administration of staff benefits)
7. Student Affairs Administration (Vice-President for Student Affairs, Dean of Student Affairs, Dean of Men, Dean of Women)
8. Institution-Wide Committees of the Faculty
9. Institutional Research
10. Campus Planning

Since Administration most certainly serves all of the other four functions, the utilization factors would again be measured by these kinds of relational ratios:

1. $ expended for Administration per FTE academic staff entire institution

2. Ratio of:
   $ expended for Administration, to:
   $ expended for compensation of academic staff entire institution

3. Ratio of:
   $ expended for Administration, to:
   $ expended for Instruction, Research, Services to the Public, and Services to the Academic Community

The Analysis of Expenses for Promotion and Development

Promotion and Development is a category within General Support made up of support units which are designed to promote and maintain a favorable level of support, both financial and otherwise, from the community at large. The intent of this definition is to include both direct fund raising and promotional or public relations activities of the institution whose aim has to do with establishing good relations for the institution with whatever communities it may be associated. Since students constitute one source of funds in the form of tuition fees and their attendance at the institution is a reflection of support for the institution, expenditures for student recruitment have been included within this category. The support units for the category are four in number:

1. Fund-raising
2. Alumni Relations
3. Public Relations and Publicity
4. Student Recruitment

All of these activities, with the exception of Student Recruitment, are related to all of the other four functions. Indeed, they are related to every activity of the institution. Thus for the full category and for each of the support units, measures of utilization should be the same relational ratios as for Plant Operation and Maintenance and Administration:

1. $ expended for Promotion and Development per FTE academic staff entire institution

2. Ratio of:
   $ expended for Promotion and Development, to:
   $ expended for compensation of academic staff entire institution

3. Ratio of:
   $ expended for Promotion and Development, to:
   $ expended for Instruction, Research, Services to the Public, and Services to the Academic Community

In addition, expenses for Student Recruitment should also be related to total student courses within the institution:

$ expended for Student Recruitment per student course entire institution

The Analysis of Expenses for General Institutional Expense

The fourth analytic category within General Support is that of General Institutional Expense. This is a category of support units which has to be defined by exclusion. It comprises all other expenditures (exclusive of Learning Resources, Plant Operation and Maintenance, Administration, Promotion and Development) which are of a general character, not relating to any specific division of the institution.

This is a category which is common to all institutions. The support units given below represent an intent to include all of this type of expenses. To the extent that they do not, it is necessary for the institution to add additional units:

1. Institutional Memberships
2. Professional Fees and Consultants
    a. Legal
    b. Investment Counsel
    c. Audit
    d. Accreditation and Self-Study
3. Communications Services
    a. Post Office, Mailing Department, Messenger Service (not postage)
    b. Telephone and Telegraph (not toll calls)
4. Insurance (fidelity, liability, workmen's compensation, not property)
5. Interest (on current funds)
6. Bad Debts
7. Official Entertainment
8. Commencement, Convocations, Public Events
9. Unallocated Staff Benefits
    a. Faculty Children Fee Remission and Payments (including Exchanges)
    b. Employee Tuition Fees Waived
    c. Faculty Club Subsidy
    d. Moving Expense
    e. Change in Accrued Leave Liability
    f. Extended Sick Leave
10. Allowances to Retired Personnel; Payments to Dependents of Deceased Personnel
11. Unassigned Academic Personnel

The last support unit, that of Unassigned Academic Personnel, requires some explanation. Since this analytic framework requires the identification of assignments accounting for all the compensation of all academic personnel, it is necessary to provide for the possibility of an academic person having no stated assignment for a term or portion of term, e.g., a new faculty member who arrives just several weeks prior to the end of a term. Such faculty time and compensation would be charged to the Unassigned Academic Personnel support unit caption.

The measures of utilization factors for this category and the support units within it would again be the three relational ratios:

1. $ expended for General Institutional Expense per FTE academic staff entire institution
2. Ratio of:
   $ expended for General Institutional Expense, to:
   $ expended for compensation of academic staff entire institution
3. Ratio of:
   $ expended for General Institutional Expense, to:
   $ expended for Instruction, Research, Services to the Public, and Services to the Academic Community

CHAPTER XIII

THE COMPILATION AND PRESENTATION OF DATA

Financial analyses of institutions of higher learning are carried on for both external and internal purposes. Externally the reports are first concerned with telling those responsible for or concerned with the operation of the institution--the governing board, the state fiscal officials and legislature, the alumni, prospective donors, and the general public--what the operation of the institution costs and through what activities that cost was incurred. Many of these persons and agencies also have the responsibility of a judgment on those costs. One way of exercising this responsibility and making such a judgment is through a comparison of the costs of the institution with some other type of institutional data. Judgment inevitably involves comparison. This is the reason that comparisons of one type or another are made and, as long as these responsibilities exist, they will continue to be made. The task of the analyst, then, is to present the analytic data in a format which facilitates legitimate comparisons and understanding of institutional operations but, at the same time, discourages comparisons and judgments which are unwarranted.

In Chapter IV there were presented the five types of comparison which are considered to be most useful for analytic purposes in higher education: historical comparison, interinstitutional comparison, policy variation comparison through model simulation, intrainstitutional comparison, and policy deviation comparison.[1] Of these five, the approach which is considered to be most questionable by college and university officials, generally, is that of interinstitutional comparison.

Certainly interinstitutional comparison is a very difficult and sometimes dangerous undertaking. Institutions of higher learning are exceedingly diverse operations. Although all of them bear the name of "college" or "university," they can be highly dissimilar and performing a wide variety of functions. They may classify and account for identical activities in varying fashions. Also, as discussed earlier, they may have differing cost curves or be operating at different points on the same cost curve.[2] If these dissimilarities are unrecognized and thus not taken into account, judgments can be made and actions taken which are detrimental to the institution and the attainment of its goals. On the other hand, if these dissimilarities are clearly pointed out and explained, these misjudgments will not be made. Further, where areas of similarity do exist between two or more institutions, very valuable and useful comparisons can be made. Institutional coordinating bodies, governing boards, and internal administrative officers both want and need to know how similar functions and activities are being carried out in other institutions. In a time when the financial resources available to higher education are extremely limited in relation to a demand that is increasing at an accelerated rate, every tool possible should be in the hands of those responsible for the operation of the institutions of higher learning which will aid them in maximizing the economic use of those resources. Valid, reliable interinstitutional operational information can be one of the most valuable of those tools if it can be made available.

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[1] Supra, p. 35.

[2] Supra, pp. 87-88.

Reports for internal purposes differ from those produced for external purposes only in detail. The administrator of the institution and his staff hold the major, most direct responsibility for the operation of the college or university. They, too, must have some types of analyses available which tell them what the institution costs and why. To these ends all five kinds of comparative data are useful. Therefore, the reports must make these comparisons possible.

Internally, however, a new dimension is added. Internal reports are produced for the use of persons who are actively concerned with the operational administration of the institution at all levels. The presentations must not only explain what the various activities of the institution cost and why, but they must also emphasize the various things that make these costs what they are and point out ways in which changes may be made or present levels maintained. The costs are the result of institutional policies. The analyses must relate those costs to these policies.

Chapters VIII through XII have shown the information which is to be identified with each environmental and support unit in this analytic procedure. The next step involves the compilation and presentation of these data in meaningful, useful forms. They must tell a financial story and that story must have a purpose.

In this procedure the following analytic data is presented for each of the functional activities of the institution.

1. Measures of the resources of the institution devoted to that activity
    a. Dollars
    b. Human resources

2. **Measures of the utilization of those resources in that activity**
    a. **Cost of utilization of the unit in relation to persons served (unit cost)**

       or

    b. **If persons served cannot be quantitatively measured, a unit cost which shows the resources devoted to the activity in relation to the entire institution**

       or

    c. **Both of the above**

3. **Where the economic factors causing the cost and interrelationship are known (the cost equation), measures of each of the factors are presented.**

In the sample analyses found at the end of this chapter, Report Formats 1 and 2 are summary presentations which are concerned only with (1) above--the measures of the resources of the institution devoted to each of the major functional activities. Report Formats 3 through 7, however, present all of the measures given above for each of the categories of each of the functions. For example, in Report Format 3 there is presented, among other analyses, an analysis of the lecture form of group instruction in an institution.

1. Measures of the resources of the institution devoted to lecture sections
    a. Dollars--the last three columns give total dollars devoted to the lecture form of instruction and break that figure down into dollars for direct academic compensation and dollars for immediate support.
    b. Human resources--the 8th column gives the total number of FTE direct academic personnel devoted to lecture sections.

2. Measures of the utilization of those resources in lecture sections
    a. Column 7 shows the number of students utilizing this form of organized teaching.
    b. Column 1 gives the unit cost--the cost per each student registered.

3. Measures of the economic factors causing the cost
    a. The cost of organized teaching is determined by the formula $Z(S \div F) + \Sigma I$[3]
        Z (number of sections) is found in column 2

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[3] *Supra*, p. 78.

S (academic compensation) is found in column 9 as a total and in column 6 as an average for teachers of lecture sections
F (faculty load in sections) is found in column 4
I (immediate support) is found in column 10

b. In addition, other factors are given:
Average section size, an indicator of Z, is found in column 3
Student registrations per teacher (or direct academic) which is a combined measure of class size and teaching load (sometimes called productivity per teacher) is found in column 5

The number of ways that the operation of an institution can be studied in this fashion are almost endless. Each of the classifications by which each environmental and support unit is identified and various cross-combinations of these classifications might be useful. Many institutions would have specialized reasons for analyzing in certain ways that would be of use to no other institution. An idea of the number of possibilities is given in Exhibit 43 which suggest some possible combinations for organized teaching only. For internal analysis, the institution itself would have to decide which combinations might be most useful for special purposes. The types and classifications of environmental and support units and the information identified with them in Chapters VIII through XII would, however, make almost any sort of analysis which was desired possible of attainment.

For external purposes it is necessary to recommend certain formats for presentations of data. Report Formats 1 through 10 constitute the Basic Set of reports through which it is recommended that the single-period, single-institution analytic data for all institutions of higher learning should be presented. Report Formats 1 through 8 are concerned with the analysis of expenses for the period. Report Format 9 is concerned with income and Report Format 10 with the functional relationship of income and expense.

Report Formats 11 through 15 are sample formats illustrating the five types of comparisons recommended by this study. Actually, the Basic Set includes a considerable number of intra-institutional comparisons and at least one of the presentations, Report Format 3, Section D, is a policy deviation comparison.

EXHIBIT 43

POSSIBLE COMBINATIONS AND TABULATIONS FOR ANALYSES OF ORGANIZED TEACHING

A. Total $ for Direct Academic Compensation and Immediate Support for Teaching
  - By Course
  - By Subject Matter
  - By Department
  - By College
  - By Location
  - By Level
  - By Characteristic of Course Organization
  - By Rank of Teacher
  - By Term
  - Entire Institution
  - and combinations of the above

B. Unit Costs (per Student Registration, per Student Credits, per Student Contact Period, per Student Term Hour)
  - By Course
  - By Subject Matter
  - By Department
  - By College
  - By Location
  - By Level
  - By Characteristic of Course Organization
  - By Single-Section vs. Multi-Section Courses
  - By Rank of Teacher
  - By Term
  - Entire Institution
  - and combinations thereof (e.g., by level within the department or college or campus, by characteristic of course organization within the department or college or campus, etc.)

C. Frequency Distributions and Other Indices of Class Size (Average, % of Classes with 4 students or less, 8 students or less, etc., % of Classes with 12 or more, 25 or more, etc.)
  - By Course
  - By Subject Matter
  - By Department
  - By College
  - By Campus or Location
  - By Level
  - By Characteristic of Course Organization
  - By Single-Section vs. Multi-Section Courses
  - By Rank of Teacher

EXHIBIT 43--Continued

By Term
Entire Institution
and combinations of the above

D. Indices of Teaching Load (Number of Sections or Credits or Contact Periods Carried per FTE Teacher) - Average, Minimum, Maximum, etc.
   - By Course
   - By Subject Matter
   - By Department
   - By College
   - By Campus or Location
   - By Level
   - By Characteristic of Course Organization
   - By Rank of Teacher
   - By Term
   - Entire Institution
   - and combinations of the above

E. Indices of Productivity (Student Registrations per FTE Teacher, Student Courses per FTE Teacher, Student Credits per FTE Teacher, Student Contact Periods per FTE Teacher) - Average, Minimum, Maximum, etc.
   - By Course
   - By Subject Matter
   - By Department
   - By College
   - By Campus or Location
   - By Level
   - By Characteristic of Course Organization
   - By Single-Section vs. Multi-Section Courses
   - By Rank of Teacher
   - By Term
   - Entire Institution
   - and combinations of the above

F. Frequency Distributions and Indices of Direct Academic Compensation Levels - Average, Minimum, Maximum, etc.
   - By Course
   - By Subject Matter
   - By Department
   - By College
   - By Campus or Location
   - By Level
   - By Characteristic of Course Organization
   - By Rank of Teacher
   - Entire Institution
   - and combinations of the above

REPORT FORMAT 1 (BASIC SET)

FUNCTIONAL ANALYSIS OF EXPENSES

	ENVIRONMENTAL UNITS						SUPPORT UNITS			
		Immediate Support								
	Direct Academic Compen-sation	Academic Adminis-trative Compensation	Non-Academic Compensation	Supplies and Expense	Total Immediate Support	Total Environmental Unit Expenses	Personal Compen-sation	Supplies and Expense	Total Support Unit Expenses	TOTAL EXPENSES
Instruction										
Organized Teaching	$xxxxxxx	$xxxxxx	$xxxxxx	$xxxxxx	$ xxxxxx	$xxxxxxx	$	$	$	$ xxxxxxx
Academic Counseling	xxxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx				xxxxxx
Provision of Professional Training Facilities							xxxxxx	xxxxxx	xxxxxxx	xxxxxxx
Admissions							xxxxx	xxxx	xxxxx	xxxxx
Registration and Allied Activities							xxxxx	xxxxx	xxxxx	xxxxxx
Total Instruction	xxxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxxx	xxxxxx	xxxxxx	xxxxxxx	xxxxxxx
Research										
Research Projects	xxxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxxx				xxxxxxx
Faculty Development Time	xxxxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxxxx				xxxxxx
Provision of Special Research Facilities							xxxxxx	xxxxx	xxxxxx	xxxxxx
Total Research	xxxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxxx
Services to the Public										
Organized Teaching	xxxxxx	xxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx				xxxxxx
Dissemination of Knowledge	xxxxxx	xxxxx	xxxxx	xxxxx	xxxxxx	xxxxxx				xxxxxx
Regulation and Inspection	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx				xxxxx
Total Services to the Public	xxxxxxx	xxxxx	xxxxx	xxxxxx	xxxxxxx	xxxxxxx				xxxxxxx
Services to the Academic Community										
Student Development							xxxxx	xxxx	xxxxx	xxxxx
Financial Aid							xxxx	xxxxxx	xxxxxx	xxxxxx
Care, Subsistence, and Recreation							xxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
Total Services to the Academic Community							xxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
General Support										
Learning Resources							xxxxxx	xxxxx	xxxxxx	xxxxxx
Plant Operation and Maintenance							xxxxxx	xxxxxx	xxxxxxx	xxxxxxx
Administration							xxxxxx	xxxxx	xxxxxx	xxxxxx
Promotion and Development							xxxxx	xxxx	xxxxx	xxxxx
General Institutional Expense							xxxxxx	xxxxxx	xxxxxx	xxxxxx
Total General Support							xxxxxxx	xxxxxx	xxxxxxx	xxxxxxx
TOTAL INSTITUTION	xxxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxxx		xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxxx
Transfers to Non-Operating Funds To Plant Fund for Equipment										xxxxxx

REPORT FORMAT 2 (BASIC SET)

FUNCTIONAL ALLOCATION OF HUMAN RESOURCES

	ENVIRONMENTAL UNITS				
	FTE Direct Academic Staff	Ratio to Direct Academic Staff in Institution--Organized Teaching	FTE Administrative Academic Staff	FTE Non-Academic Staff	SUPPORT UNITS FTE Staff
Instruction					
Organized Teaching of Degree-Credit Courses	xxx.x		xx.x	xxx.x	
Academic Counseling	xx.x	1:xx.x	x.x	x.x	
Provision of Professional Training Facilities					xx.x
Admissions					xx.x
Registration and Allied Activities					xx.x
Total Instruction	xxx.x		xx.x	xxx.x	
Research					
Research Projects	xxx.x	1:xx.x	xx.x	xxx.x	
Faculty Development Time	xxx.x	1:xx.x	x.x	xx.x	
Provision of Special Research Facilities					xx.x
Total Research	xx.x	1:xx.x	xx.x	xxx.x	
Services to the Public					
Organized Teaching of Non-Credit Courses	xxx.x	1:xx.x	xx.x	xx.x	
Dissemination of Knowledge	xx.x	1:xx.x	x.x	x.x	
Regulation and Inspection	x.x	1:xx.x	x.x	x.x	
Total Services to the Public	xxx.x	1:xx.x	xx.x	xx.x	
Services to the Academic Community					
Student Development					xx.x
Financial Aid					x.x
Care, Subsistence, and Recreation					xxx.x
Total Services to the Academic Community					xxx.x
General Support					
Learning Resources					xx.x
Plant Operation and Maintenance					xxx.x
Administration					xx.x
Promotion and Development					x.x
General Institutional Expense					x.x
Total General Support					xxx.x
TOTAL INSTITUTION	xxx.x		xx.x	xxx.x	xxx.x

REPORT FORMAT 3 (BASIC SET)

ANALYSES OF INSTRUCTION

Organized Teaching of Degree-Credit Courses

A. Analysis by Characteristic of Course Organization	Cost Per Student Course	Number of Courses	Average Section Size	Number of Sections Per FTE Direct Academic	Student Courses Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of Student Courses	Number of FTE Direct Academic	Expenses		
									Direct Academic Compensation	Immediate Support	Total Expenses
Group Instruction											
Lecture	$ xx.xx	xxx	xx	x.x	xxx	$xxxxx	xxxxx	xxx.x	$ xxxxxx	$ xxxxx	$ xxxxxx
Seminar, Discussion, or Quiz	xx.xx	xx	xx	x.x	xxx	xxxx	xxxxx	xxx.x	xxxxxx	xxxxx	xxxxxx
Laboratory	xx.xx	xx	xx	x.x	xxx	xxxx	xxxxx	xxx.x	xxxxxx	xxxxx	xxxxxx
Lecture with Separate Quiz Sections	xx.xx	xx			xxx	xxxx	xxxxx	xx.x	xxxxx	xxxxx	xxxxx
Lecture Sections			xx	x.x							
Quiz Sections			xx	x.x							
Lecture with Separate Laboratory Sections	xx.xx	xxx			xxx	xxxx	xxxxx	xx.x	xxxxx	xxxxx	xxxxx
Lecture Sections			xx	x.x							
Laboratory Sections			xx	x.x							
Lecture with Separate Quiz and Laboratory Sections	xx.xx	xx			xxx	xxxx	xxxx	xx.x	xxxxx	xxxx	xxxxx
Lecture Sections			xx	x.x							
Quiz Sections			xx	x.x							
Laboratory Sections			xx	x.x							
Other Instructional Arrangements	xx.xx	xx	xx	x.x	xxx	xxxx	xxxx	xx.x	xxxxx	xxxxx	xxxxx
All Group Instruction			xx	x.x							
One Teacher-One Student Relationships											
Independent Study	xx.xx	xx			xx	xxxx	xxx	xx.x	xxxxx	xxxx	xxxxx
Supervision of Graduate Candidacies	xxx.xx	xx			xx	xxxxx	xxxx	xx.x	xxxxx	xxxxx	xxxxx
Total Institution	xx.xx	xxxx			xx	xxxx	xxxxxx	xxx.x	xxxxxxx	xxxxxx	xxxxxxx

B. Analysis by Characteristic of Course Division Organization	Cost Per Student Registration	Number of Sections	Average Section Size	Number of Sections Per FTE Direct Academic	Student Registrations Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of Student Registrations	Number of FTE Direct Academic	Expenses		
									Direct Academic Compensation	Immediate Support	Total Expenses
Group Instruction											
Lecture	$ xx.xx	xxx	xx	x.x	xxx	$xxxxx.	xxxxx	xxx.x	$ xxxxxx.	$ xxxxx.	$ xxxxxx.
Seminar, Discussion, or Quiz	xx.xx	xxx	xx	x.x	xxx	xxxx.	xxxxx	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
Laboratory	xx.xx	xxx	xx	x.x	xxx	xxxx.	xxxxx	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
Other Instructional Arrangements	xx.xx	xx	xx	x.x	xxx	xxxx.	xxxx	xx.x	xxxxx.	xxxxx.	xxxxx.
All Group Instruction	xx.xx	xxxx	xx	x.x	xxx	xxxx.	xxxxx	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
One Teacher-One Student Relationships											
Independent Study	xx.xx				xx	xxxx.	xxx	xx.x	xxxxx.	xxxx.	xxxxx.
Supervision of Graduate Candidacies	xxx.xx				xx	xxxxx.	xxxx	xx.x	xxxxx.	xxxxx.	xxxxx.
All 1-1 Relationships	xxx.xx				xx	xxxxx	xxxx	xx.x	xxxxx.	xxxxx.	xxxxx.
Total Institution	xx.xx				xxx	xxxx.	xxxxxx	xxx.x	xxxxxxx.	xxxxxx.	xxxxxxx.

REPORT FORMAT 3--Continued

C. Analysis by Level of Course Division and Multiplicity of Sections	Cost Per Student Registration	Student Registrations Per FTE Direct Academic	Direct Academic Compensation	Number of Student Registrations	Number of FTE Direct Academic	Expenses		
			Average Rate Academic Year			Direct Academic Compensation	Immediate Support	Total Expenses
Undergraduate Course Divisions								
Single Section	$ xx.xx	xxx	$ xxxx.	xxxx	xx.x	$ xxxxxx.	$ xxxxx	$ xxxxxx
Multiple Section	x.xx	xxx	xxxx.	xxxxx	xxx.x	xxxxxx.	xxxxx	xxxxxx
1-1 Relationships	xx.xx	xx	xxxx.	xxx	x.x	xxxx.	xxx	xxxx
Total	xx.xx	xxx	xxxx.	xxxxx	xxx.x	xxxxxx.	xxxxx	xxxxxx
Advanced Undergraduate and Graduate Course Divisions								
Single Section	xx.xx	xxx	xxxxx.	xxxxx	xxx.x	xxxxxxx.	xxxxxx	xxxxxxx
Multiple Section	xx.xx	xxx	xxxx.	xxxx	xx.x	xxxxxx.	xxxxx	xxxxxx
1-1 Relationships	xxx.xx	xx	xxxxx.	xxxx	xx.x	xxxxx	xxxx	xxxxx
Total	xx.xx	xxx	xxxx.	xxxxx	xxx.x	xxxxxxx.	xxxxxx	xxxxxxx
Graduate Course Divisions								
Single Section	xxx.xx	xx	xxxxx.	xxxx	xx.x	xxxxxx.	xxxxx	xxxxxx
Multiple Section	xx.xx	xxx	xxxxx.	xxx	x.x	xxxxx.	xxxx	xxxxx
1-1 Relationships	xxx.xx	xx	xxxxx	xxxx	xx.x	xxxxx.	xxxxx	xxxxx
Total	xx.xx	xx	xxxxx	xxxx	xx.x	xxxxxx.	xxxxx	xxxxxx
All Course Divisions								
Single Section	xx.xx	xxx	xxxx.	xxxxxx	xxx.x	xxxxxxx	xxxxxx	xxxxxxx
Multiple Section	xx.xx	xxx	xxxx.	xxxxxx	xxx.x	xxxxxx	xxxxx	xxxxxx
1-1 Relationships	xxx.xx	xx	xxxxx	xxxx	xx.x	xxxxx	xxxxx	xxxxxx
Total	xx.xx	xxx	xxxx.	xxxxxx	xxx.x	xxxxxxx	xxxxxx	xxxxxxx

D. Analysis of Course Capacity (Excluding 1-1 Relationships)	Number of Course Divisions	Number of Sections	Average Section Size	Actual Section Sizes as Percentage of Optimum Section Sizes					
				1-25% No. of Secs.	26-50% No. of Secs.	51-70% No. of Secs.	71-90% No. of Secs.	91-110% No. of Secs.	Over 110% No. of Secs.
Undergraduate Courses									
Single Section	xxx	xxx	xx		x	x	xx	xxx	x
Multiple Section	xx	xxx	xx				x	xxx	x
Advanced Undergraduate and Graduate Courses									
Single Section	xxx	xxx	xx	x	x	xx	xx	xxx	xx
Multiple Section	xx	xxx	xx				xx	xxx	xx
Graduate Courses									
Single Section	xxx	xxx	xx	xx	xx	xxx	xxx	xx	x
Multiple Section	x	x	xx				x	x	x

REPORT FORMAT 3--Continued

E. Analysis by Degrees and Fields of Study	Cost Per Student Course	Number of Student Courses	Student Courses Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic	Expenses Direct Academic Compensation	Expenses Immediate Support	Expenses Total Expenses
Bachelor's Degrees								
Liberal Arts	$ xx.xx	xxxxx.	xxx	$ xxxx.	xxx.x	$xxxxxxx.	$xxxxxx.	$xxxxxxx.
Engineering	xx.xx	xxxxx	xxx	xxxx.	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
Business	xx.xx	xxxxx	xxx	xxxx.	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
Education	xx.xx	xxxxx	xxx	xxxx.	xxx.x	xxxxxx.	xxxxx.	xxxxxx.
All	xx.xx	xxxxx	xxx	xxxx	xxx.x	xxxxxxx.	xxxxxx.	xxxxxxx.
Master's Degrees								
Engineering	xx.xx	xxxx	xxx	xxxxx.	xx.x	xxxxxx.	xxxxx.	xxxxxx.
Education	xx.xx	xxxx	xxx	xxxxx.	xx.x	xxxxxx.	xxxx.	xxxxxx.
All	xx.xx	xxxx	xxx	xxxxx	xx.x	xxxxxx.	xxxxx.	xxxxxx.
Doctor's Degrees								
Engineering	xxx.xx	xxxx	xx	xxxxx.	xx.x	xxxxxx.	xxxxx.	xxxxxx.
Education	xx.xx	xxxx	xxx	xxxxx.	xx.x	xxxxxx.	xxxx.	xxxxxx.
All	xxx.xx	xxxx	xxx	xxxxx.	xx.x	xxxxxx.	xxxx.	xxxxxx.
Total All Degrees and Fields	xx.xx	xxxxxx	xxx	xxxxx.	xxx.x	xxxxxxx.	xxxxxx.	xxxxxxx.

F. Analysis by Student Levels (Progress Categories)	Cost Per Student Course	Number of Student Courses	Student Courses Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic	Expenses Direct Academic Compensation	Expenses Immediate Support	Expenses Total Expenses
Institutional Term: Semester*								
Undergraduate Degree Progress Categories								
1	$ xx.xx	xxxxx	xxx	$ xxxx	xx.x	$ xxxxxx	$ xxxxx	$ xxxxxx
2	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
3	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
4	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
5	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
6	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxx	xxxxx	xxxxxx
7	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
8	xx.xx	xxxxx	xxx	xxxx	xx.x	xxxxxx	xxxxx	xxxxxx
9	xxx.xx	xxxx	xxx	xxxx	xx.x	xxxxx	xxxxx	xxxxx
10	xxx.xx	xxxx	xxx	xxxx	x.x	xxxx	xxxx	xxxxx
Total - Undergraduate	xx.xx	xxxxx	xxx	xxxx	xxx.x	xxxxxxx	xxxxxx	xxxxxxx
Graduate Level								
Campus Course Stage (Pre-Dissertation):								
Master's Degree								
Progress Categories								
1	xx.xx	xxxx	xx	xxxx	xx.x	xxxxx	xxxxx	xxxxxx
2	xx.xx	xxxx	xx	xxxxx	xx.x	xxxxx	xxxxx	xxxxx
3	xxx.xx	xxx	xx	xxxxx	x.x	xxxxx	xxxx	xxxxx
4 and over	xx.xx	xx	xx	xxxxx	x.x	xxxxx	xxx	xxxxx

REPORT FORMAT 3--Continued

F. Analysis by Student Levels (Progress Categories) (continued)	Cost Per Student Course	Number of Student Courses	Student Courses Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic	Expenses		
						Direct Academic Compensation	Immediate Support	Total Expenses
Doctor's Degree Progress Categories								
1	$ xx.xx	xxxx	xx	$xxxxx	xx.x	$ xxxxx	$ xxxxx	$ xxxxx
2	xx.xx	xxxx	xx	xxxxx	xx.x	xxxxx	xxxxx	xxxxx
3	xxx.xx	xxxx	xx	xxxxx	xx.x	xxxxx	xxxx	xxxxx
4	xxx.xx	xxxx	xx	xxxxx	xx.x	xxxxx	xxxx	xxxxx
5	xxx.xx	xxx	xx	xxxxx	x.x	xxxxx	xxxx	xxxxx
6 and over	xxx.xx	xx	x	xxxxx	x.x	xxxxx	xxxx	xxxxx
Total - Campus Course Stage	xxx.xx	xx	xx	xxxxx	xx.x	xxxxxx	xxxxx	xxxxxx
Dissertation Stage:								
Master's Degree Progress Categories (D1 and over)	xxx.xx	xx	x	xxxxx	x.x	xxxxx	xxxx	xxxxx
Doctor's Degree Progress Categories (D1 and over)	xxx.xx	xxx	xx	xxxxx	xx.x	xxxxx	xxxxx	xxxxx
Total - Dissertation Stage	xxx.xx	xxx	xx	xxxxx	xx.x	xxxxxx	xxxxx	xxxxxx
Total - Graduate Level	xxx.xx	xxxx	xx	xxxxx	xxx.x	xxxxxx	xxxxx	xxxxxx
Total - All Levels	xx.xx	xxxxxx	xxx	xxxxx	xxx.x	xxxxxxx	xxxxxx	xxxxxxx

*If an institution is on the quarter term basis, Undergraduate Progress Categories would range from 1 to 15, Graduate Level Master's from 1 to 6, and Graduate Level Doctor's from 1 to 9.

Academic Counseling

Analysis of Academic Counseling	Cost Per Student Counseling Registration	Student Registrations Per FTE Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of Student Counseling Registrations	Number of FTE Direct Academic	Expenses		
						Direct Academic Compensation	Immediate Support	Total Expenses
Assigned Counseling	$ x	xxx	$ xxxx	xxxx	xx.x	$xxxxx	$xxxx	$xxxxx
Graduate Committee Service	xxx	xx	xxxxx	xxx	xx.x	xxxxx	xxxx	xxxxx

Professional Training Facilities

Analysis of Professional Training Facilities	Cost Per Student Registration in Facility	Number of Student Registrations in Facility	Optimum No. of Student Registrations in Facility	Total FTE Staff	Expenses			Gross Income
					Personal Compensation	Supplies and Expense	Total Expenses	
Clinical Training Facility:								
Speech Clinic	$xxx.xx	xx	xx	.x	$xxxx	$ xxx.	$ xxxx	$xxx
Teacher Training Facility:								
Practice Teaching Contracts	xxx.xx	xxx	xxx	x.x	xxxx	xxxx.	xxxxx	

REPORT FORMAT 3--Continued

Admissions

Analysis of Admissions	Cost Per Student Course	Number of Student Courses	Cost Per Application Processed	Number of Applications Processed (Entire Year)	Cost Per Student Admitted	Number of Students Admitted (Entire Year)	Total FTE Staff	Expenses		
								Personal Compensation	Supplies and Expense	Total Expenses
All Admissions Activities	$.xx	xxxxx	$x.xx	xxxx	$xx.xx	xxxx	xx.x	$xxxxx	$xxxxx	$xxxxx

Registration and Allied Activities

Analysis of Registration and Allied Activities	Cost Per Student Course	Number of Student Courses	Total FTE Staff	Expenses		
				Personal Compensation	Supplies and Expense	Total Expenses
All Registration Activities	$x.x	xxxxxx	xx.x	$xxxxx	$xxxx	$xxxxx

REPORT FORMAT 4 (BASIC SET)

ANALYSIS OF RESEARCH

Research Projects

Analysis by Relation to Instruction and by Subject Matter	Cost Per FTE Direct Academic Staff Assigned	Direct Academic Compensation Average Rate Academic Year	Number of Research Registrations	Cost Per Research Registration	Number of Participating Academic Staff Classified as Teachers	Cost Per Participating Teacher	Number of FTE Direct Academic Staff Assigned	Number of Projects	Expenses		
									Direct Academic Compensation	Immediate Support	Total Expenses
Projects Involving Students											
Psychology	$xxxxx.	$ xxxx.	xx	$xxxx.	x.xx	$xxxxx.	xx.xx	x	$ xxxxx.	$ xxxx.	$ xxxxx.
Education	xxxxx.	xxxx.	xx	xxx.	x.xx	xxxx.	x.xx	x	xxxx.	xxx.	xxxx.
Chemistry	xxxxx	xxxxx.	xx	xxxx.	xx.xx	xxxxx.	xx.xx	xx	xxxxxx.	xxxxx.	xxxxxx.
Total	xxxxx	xxxx	xxx	xxxx.	xxx.xx	xxxxx	xxx.xx	xx	xxxxxx.	xxxxx.	xxxxxx.
Projects Involving Teachers But Not Students											
Psychology	xxxxx	xxxxx.			.xx	xxxxx	x.xx	x	xxxx.	xxxx.	xxxx.
Physics	xxxxx	xxxx.			x.xx	xxxx	x.xx	x	xxxxx.	xxxx.	xxxxx.
Total	xxxxx	xxxx			x.xx	xxxxx	xx.xx	xx	xxxxx.		
Projects Involving Neither Teachers Nor Students											
Physics	xxxxx	xxxxx					x.xx	x	xxxxx.	xxx.	xxxxx.
Public Administration	xxxxx	xxxx					x.xx	x	xxxxx.	xxxx.	xxxxx.
Total	xxxxx	xxxxx					x.xx	xx	xxxxx.	xxxx.	xxxxx.
Total Research Projects	xxxxx	xxxx					xxx.xx	xxx	xxxxxxx.	xxxxxx.	xxxxxxx.

Faculty Development Time

Analysis of Faculty Development Time	Cost Per FTE Direct Academic Staff Assigned	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic Staff Assigned	Expenses		
				Direct Academic Compensation	Immediate Support	Total Expenses
Total Faculty Development Time	$xxxx.	$xxxx.	xx.xx	$xxxxx.	$xxx.	$xxxxx.

Special Research Facilities

Analysis of Special Research Facilities	Cost Per Direct Academic Staff Using Facility	Number of Direct Academic Staff Using Facility	Cost Per Research Project Using Facility	Number of Research Projects Using Facility	Number of FTE Staff	Expenses		
						Personal Compensation	Supplies and Expense	Total Expenses
Nuclear Reactor	$xx.	xxx	$xxx.	xx.	x.xx	$xxxxx	$xxxxx	$xxxxx

REPORT FORMAT 5 (BASIC SET)

ANALYSIS OF SERVICES TO THE PUBLIC

Organized Teaching of Non-Credit Courses

Analysis by Characteristic of Course Division Organization	Cost Per Student Registration	Number of Sections	Average Section Size	Number of Sections Per FTE Direct Academic	Student Registrations Per Direct Academic	Direct Academic Compensation Average Rate Academic Year	Number of Student Registrations	Number of FTE Direct Academic Staff	Expenses: Direct Academic Compensation	Expenses: Immediate Support	Expenses: Total Expenses
Group Instruction											
Lecture	$xx.xx	xxx	xx	x.x	xxx	$xxxx.	xxxx	xx.x	$xxxxx.	$xxxx.	$xxxxx.
Seminar, discussion, or quiz	xx.xx	xxx	xx	x.x	xxx	xxxx.	xxxx	xx.x	xxxxx.	xxxx.	xxxxx.
Laboratory	xx.xx	xxx	xx	x.x	xxx	xxxx.	xxxx	xx.x	xxxxx.	xxxx.	xxxxx.
Other instructional arrangements	xx.xx	xx	xx	x.x	xxx	xxxx.	xxxx	x.x	xxxx.	xxx.	xxxx.
Total Institution	xx.xx	xxx	xx	x.x	xxx	xxxx.	xxxx	xx.x	xxxxx.	xxxx.	xxxxx.

Dissemination of Knowledge through Other Than Organized Teaching

Analysis of Activities	Cost Per FTE Direct Academic Staff Assigned	Number of Persons Served	Cost Per Person Served	Number of Programs, Publications or Activities	Cost Per Program, Publication or Activity	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic Staff	Expenses: Direct Academic Compensation	Expenses: Immediate Support	Expenses: Total Expenses
Community Television	$xxxx	xxx	$xxx.	xx	$xxxx	$xxxx.	x.xx	$xxxxx.	$ xxx.	$xxxxx.
University Press		xxxx	x.	xx	xxxx				xxxxx.	xxxxx.
Total Institution								xxxxx.	xxxxx.	xxxxx.

Regulation and Inspection

Analysis of Activities	Cost Per FTE Direct Academic Staff Assigned	Number of Service Activities	Cost Per Service Activity	Direct Academic Compensation Average Rate Academic Year	Number of FTE Direct Academic Staff	Expenses: Direct Academic Compensation	Expenses: Immediate Support	Expenses: Total Expenses
Soils Analysis Laboratory	$ xxxx.	xxxx	$x.xx	$ xxxx	.xx	$ xxxx.	$xxxx.	$xxxx.
Veterinary Licensing		xxx	x.xx				xxxx.	xxxx.
Total Institution						xxxx.	xxxx.	xxxx.

REPORT FORMAT 6 (BASIC SET)

ANALYSIS OF SERVICES TO THE ACADEMIC COMMUNITY

Student Development

Analysis of Social-Psychological Counseling					Expenses		
	Cost Per Student Course	Number of Students Counseled	Cost Per Student Counseled	Number of FTE Staff	Personal Compen-sation	Supplies and Expense	Total Expenses
All Counseling Activities	$x.xx	xxxx	$x.xx	x.xx	$xxxxx.	$xxx	$xxxxx.

Analysis of Religious Training or Activities			Expenses		
	Cost Per Student Course	Number of FTE Staff	Personal Compen-sation	Supplies and Expense	Total Expenses
All Religious Activities	$x.xx	x.xx	$xxxx.	$xxx.	$xxxx.

Analysis of Vocational Testing and Placement					Expenses		
	Cost Per Student Course	Number of Students Served	Cost Per Student Served	Number of FTE Staff	Personal Compen-sation	Supplies and Expense	Total Expenses
All Vocational Testing and Placement Activities	$x.xx	xxxx	$x.xx	x.xx	$xxxxx	$xxxx	$xxxxx

Financial Aid

Analysis of Operation of Student Financial Aid Offices and Services					Expenses		
	Cost Per Student Course	Number of Students Served	Cost Per Student Served	Number of FTE Staff	Personal Compen-sation	Supplies and Expense	Total Expenses
All Activities	$x.xx	xxxx	$xx.xx	x.x	$xxxxx	$xxxx	$xxxxx

Analysis of Payments to Students	Cost Per Student Course	Cost Per Grant (Average Grant Payment)	Number of Grants	Total Expenses (Total Grant Payments)
Scholarships	$ x.xx	$xxx.	xxx	$ xxxxx.
Tuition Remissions	x.xx	xxx.	xxx	xxxxx.
Total	xx.xx	xxx.	xxx	xxxxxx

Care, Subsistence, and Recreation

Analysis of Housing						Expenses		
	Cost Per Student Course	Number of Students Housed	Cost Per Student Housed	Average Rental Charge	Total FTE Staff	Personal Compen-sation	Supplies and Expense	Total Expenses
Dormitory A	$	xxx	$xxx.	$xxx.	xx.x	$ xxxxx.	$ xxxxx.	$xxxxxx.
Dormitory B		xxx	xxx.	xxx.	xx.x	xxxxx.	xxxxx.	xxxxxx.
All Dormitories	xx	xxx	xxx.	xxx.	xxx.x	xxxxxx.	xxxxxx.	xxxxxx.

REPORT FORMAT 6--Continued

Care, Subsistence, and Recreation (continued)

Analysis of Food Service	Cost Per Student Course	Number of Meals Served	Cost Per Meal Served	Average Meal Charge	Total FTE Staff	Expenses		
						Personal Compen-sation	Supplies and Expense	Total Expenses
All Food Service	$xx.	xxxxxx	$.xxx	$.xxx	xx.x	$xxxxxx.	$xxxxxx.	$xxxxxx.

Analysis of Intercollegiate Athletics	Cost Per Student Course	Number of Student Athletes Partici-pating	Cost Per Athlete Partici-pant	Total Attendance		Cost Per Person Attending		Total FTE Staff	Expenses		
				Home	Away	Home	Home and Away		Personal Compen-sation	Supplies and Expense	Total Expenses
Football	$xx.xx	xx	$xxxx.xx	xxxxx	xxxxx	$x.xx	$x:xx	x.x	$ xxxxx.	$xxxxx.	$xxxxxx.
Basketball	x.xx	xx	xxx.xx	xxxxx	xxxxx	x.xx	x.xx	x.x	xxxxx.	xxxx.	xxxxx.
Baseball	.xx	xx	xx.xx	xxxx	xxxx	x.xx	x.xx	x.x	xxxx.	xxxx.	xxxx.
Track and Field	.xx	xxx	xx.xx	xxxx	xxxx	x.xx	x.xx	x.x	xxxx.	xxxx.	xxxx.
Swimming	.xx	xx	xx.xx	xxxx	xxxx	x.xx	x.xx	x.x	xxxx.	xxxx.	xxxx.
Tennis	.xx	xx	x.xx	xxx	xxx	x.xx	x.xx	x.x	xxxx.	xxxx.	xxxx.
All Intercollegiate Athletics	xx.xx	xxx	xxx.xx	xxxxx	xxxxx	x.xx	x.xx	xx.x	xxxxxx.	xxxxx.	xxxxxx.

REPORT FORMAT 7 (BASIC SET)

ANALYSIS OF GENERAL SUPPORT

Learning Resources

Analysis of Learning Resources	Cost Per FTE Academic Staff (Entire Institution)	Relationship of Expenses for Learning Resources to:			Cost Per Student Course	Total FTE Staff	Expenses		
		Total Compensation for Academic Staff	Total Expenses for Other Four Functions	Total Expenses for Instruction and Research			Personal Compensation	Supplies and Expense	Total Expenses
Library	$xxx.	.xxx	.xxx	.xxx	$x.xx	xx.x	$xxxxxx.	$xxxxx.	$xxxxxx.
Audio-Visual Aids	xx.	.xxx	.xxx	.xxx	.xx	x.x	xxxxx.	xxxx.	xxxxx.
TV Station	xxx.	.xxx	.xxx	.xxx	x.xx	x.x	xxxxx.	xxxx.	xxxxx.
Total Learning Resources	xxx.	.xxx	.xxx	.xxx	x.xx	xx.x	xxxxxx.	xxxxx.	xxxxxx.

Plant Operation and Maintenance

Analysis of Plant Operation and Maintenance	Cost Per FTE Academic Staff (Entire Institution)	Relationship of Expenses for Plant Operation and Maintenance to:		Total FTE Staff	Expenses		
		Total Compensation for Academic Staff	Total Expenses for Other Four Functions		Personal Compensation	Supplies and Expense	Total Expenses
Care and Cleaning of Grounds	$xxx.	.xxx	.xxx	xx.x	$ xxxxx.	$ xxxxx.	$ xxxxx.
Maintenance and Repair of Buildings	xxx.	.xxx	.xxx	xx.x	xxxxx.	xxxxxx.	xxxxxx.
Routine Care and Cleaning of Buildings	xxx.	.xxx	.xxx	xx.x	xxxxxx.	xxxxxx.	xxxxxx.
Provision of Utilities	xxx.	.xxx	.xxx	xx.x	xxxxxx.	xxxxxx.	xxxxxx.
Protection of Plant and Persons	xx.	.xxx	.xxx	xx.x	xxxxx.	xxxx.	xxxxx.
Transportation Services	x.	.xxx	.xxx			xxxx.	xxxx.
Rental of Space	x.	.xxx	.xxx			xxxx.	xxxx.
Plant O & M Administration	xx.	.xxx	.xxx	x.x	xxxx.	xxx.	xxxx.
Total Plant Operation and Maintenance	xxx.	.xxx	.xxx	xx.x	xxxxxx	xxxxxx	xxxxxx

Administration

Analysis of Administration	Cost Per FTE Academic Staff (Entire Institution)	Relationship of Expenses for Administration to:		Total FTE Staff	Expenses		
		Total Compensation for Academic Staff	Total Expenses for Other Four Functions		Personal Compensation	Supplies and Expense	Total Expenses
Governing Board	$ x	.xxx	.xxx	x.x	$ xxxx.	$ xxxx.	$ xxxx.
Chief Administrative Officer	xx	.xxx	.xxx	x.x	xxxxx.	xxxx.	xxxxx.
Academic Administration	xx	.xxx	.xxx	x.x	xxxxx.	xxxx.	xxxxx.
Business and Financial Administration and Services	xxx	.xxx	.xxx	xx.x	xxxxxx.	xxxx.	xxxxxx.
Research Administration	xx	.xxx	.xxx	x.x	xxxxx.	xxxx.	xxxxx.
Personnel Administration and Services	xx	.xxx	.xxx	x.x	xxxxx.	xxxx.	xxxxx.
Student Affairs Administration	x	.xxx	.xxx	x.x	xxxx.	xxx.	xxxx.
Institution-wide Committees of the Faculty	x	.xxx	.xxx	x.x	xxxx.	xxx.	xxxx.
Institutional Research	xx	.xxx	.xxx	x.x	xxxxx.	xxxxx.	xxxxx.
Campus Planning	x	.xxx	.xxx	x.x	xxxx.	xxx.	xxxx.
Total Administration	xxx	.xxx	.xxx	xx.x	xxxxxx.	xxxxx.	xxxxx.

REPORT FORMAT 7--Continued

Promotion and Development

Analysis of Promotion and Development	Cost Per FTE Academic Staff (Entire Institution)	Relationship of Expenses for Promotion and Development to: Total Compensation for Academic Staff	Relationship of Expenses for Promotion and Development to: Total Expenses for Other Four Functions	Cost Per Student Course	Total FTE Staff	Expenses: Personal Compensation	Expenses: Supplies and Expense	Total Expenses
Fund-raising	$xx.	.xxx	.xxx	$	x.x	$xxxxx.	$ xxxx.	$xxxxx.
Alumni Relations	xx.	.xxx	.xxx		x.x	xxxxx.	xxxx.	xxxxx.
Public Relations and Publicity	xx	.xxx	.xxx		x.x	xxxxx.	xxxx.	xxxxx.
Student Recruitment	xx	.xxx	.xxx	x.xx	x.x	xxxxx.	xxxx.	xxxxx.
Total Promotion and Development	xx	.xxx	.xxx		xx.x	xxxxx.	xxxxx.	xxxxx.

General Institutional Expense

Analysis of General Institutional Expense	Cost Per FTE Academic Staff (Entire Institution)	Relation[illegible] of Expenses for Gen[illegible]l Institutional [illegible]ense to: Total Compensation for Academic Staff	Relation[illegible] of Expenses for Gen[illegible]l Institutional [illegible]ense to: Total Expenses for Other Four Functions	Total FTE Staff	Expenses: Personal Compensation	Expenses: Supplies and Expense	Total Expenses
Institutional Memberships	$ x.xx	.xxx	.xxx		$	$ xxxx.	$ xxxx.
Professional Fees and Consultants	x.xx	.xxx	.xxx			xxxx.	xxxx.
Communications Services	xx.xx	.xxx	.xxx	x.x	xxxx.	xxxx.	xxxxx.
Insurance	xx.xx	.xxx	.xxx			xxxxx.	xxxxx.
Interest	.xx	.xxx	.xxx			xxxx.	xxxx.
Bad Debts	.xx	.xxx	.xxx			xxxx.	xxxx.
Official Entertainment	x.xx	.xxx	.xxx			xxxx.	xxxx.
Commencement, Convocations, Public Events	x.xx	.xxx	.xxx			xxxxx.	xxxxx.
Unallocated Staff Benefits	x.xx	.xxx	.xxx			xxxxx.	xxxxx.
Allowances to Retired Personnel	x.xx	.xxx	.xxx			xxxxx.	xxxxx.
Unassigned Academic Personnel	xx.xx	.xxx	.xxx	x.x	xxxxx.		xxxxx.
Total General Institutional Expense	xx.xx	.xxx	.xxx	x.x	xxxx.	xxxxx.	xxxxx.

REPORT FORMAT 8 (BASIC SET)

SPECIAL REPORT ON PAYMENTS TO STUDENTS

By Student's Major Field of Study	FREE GRANTS (Scholarships, Fellowships, Fee Waivers, etc.)				STUDENT EMPLOYMENT				LOANS				Total Student Financial Assistance	
	Undergraduate		Graduate		Undergraduate		Graduate		Undergraduate		Graduate			
	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Agriculture	x	xxx	x	xxxx	xx	xxxxx	xx	xxxxx	xx	xxxx			xx	xxxxx
Architecture	x	xxx			x	xxx							xx	xxxx
Biological Sciences	xx	xxxx	x	xxxx	xx	xxxxx	xx	xxxxx	x	xxx			xx	xxxxx
Business and Commerce	x	xxx	x	xxxx	xx	xxxxx	x	xxxx	xx	xxxx	x	xxxx	xx	xxxxx
Computer Science and Systems Analysis	x	xxx	x	xxxx	xx	xxxx	x	xxxxx					xx	xxxxx
Education	xx	xxxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	xxx	xxxxxx
Engineering	xx	xxxx	x	xxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	x	xxxx	xxx	xxxxxx
English and Journalism					x	xxx	xx	xxxxx	x	xxxx	x	xxxx	xx	xxxxx
Fine and Applied Arts	x	xxx			xx	xxxxx	x	xxxx	x	xxxx			xx	xxxxx
Foreign Languages and Literature	x	xxx					x	xxxx	xx	xxxxx			xx	xxxxx
Forestry	x	xxx			x	xxxx							x	xxxx
Geography			x	xxxx	x	xxx	x	xxxx					xx	xxxx
Health Professions					xx	xxxxx			xx	xxxxx			xx	xxxxx
Home Economics	x	xxx			x	xxx			x	xxxx			x	xxxx
Law					x	xxxx			x	xxxx			xx	xxxx
Library Science					xx	xxxx	xx	xxxxx	x	xxxx	x	xxxx	xx	xxxxx
Mathematical Subjects	xx	xxxx	xx	xxxx	x	xxxx	xx	xxxxx	xx	xxxxx	x	xxxx	xx	xxxxx
Merchant Marine														
Military, Naval, or Air Force Science	xx	xxxxx											xx	xxxxx
Philosophy					x	xxx							x	xxx
Physical Sciences	xx	xxxx	x	xxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx	xx	xxxxx
Psychology	x	xxx	x	xxxx	x	xxxx	x	xxxxx	x	xxxx			xx	xxxxx
Religion	x	xxx							x	xxxx			x	xxxx
Social Sciences	xx	xxxx			xx	xxxxx	xx	xxxxx	xx	xxxxx	x	xxxx	xx	xxxxx
Trade and Industrial Training					x	xxxx			x	xxx			x	xxxx
Broad General Curriculum and Miscellaneous Fields					x	xxx			x	xxxx			x	xxxx
Total - All Fields	xxx	xxxxx	xx	xxxxx	xxx	xxxxx	xxx	xxxxxx	xxx	xxxxxx	xx	xxxxx	xxx	xxxxxx

REPORT FORMAT 9 (BASIC SET)

SMALL PUBLIC COLLEGE
1962-63
ANALYSIS OF INCOME BY FUNCTION, CATEGORY, AND SOURCE AND BY RESTRICTION STATUS

	Restriction Status			
Function Category Source	Restricted	Otherwise Earned by Function	General Institutional Income	Total Income
Instruction				
Organized Teaching of Degree-Credit Courses				
Tuition Fees				
Resident	$	$144,000	$	$ 144,000
Non-Resident		58,200		58,200
General Fees		44,800		44,800
Total Instruction				247,000
Research				
Research Projects				
State Appropriation	15,600			15,600
Gifts and Grants				
Federal Government	87,315			87,315
State Government	7,500			7,500
Local Government	17,750			17,750
Private Sources	4,394			4,394
Total Research				132,559
Services to the Public				
Organized Teaching of Non-Credit Courses				
Registration Fees		13,000		13,000
Total Services to the Public				13,000
Services to the Academic Community				
Financial Aid				
Gifts and Grants	10,000			10,000
Care, Subsistence, and Recreation				
Housing--Rentals		58,993		58,993
Student Center--Sales		233,655		233,655
Health Service--Student Fees		19,600		19,600
Intercollegiate Athletics--Admissions		24,000		24,000
Total Services to the Academic Community				371,248
General Institutional Income				
State Appropriation			1,023,700	1,023,700
Endowment			18,500	18,500
Other Sources			55,000	55,000
Total General Income				1,097,200
Total Income	$142,559	$596,248	$1,097,200	$1,836,007

REPORT FORMAT 10 (BASIC SET)

SMALL PUBLIC COLLEGE
1962-63
COMPARATIVE ANALYSIS OF INCOME AND EXPENSES BY FUNCTION

	Income	Expense	Difference
Instruction			
Organized Teaching of Degree-Credit Courses	$ 247,000	$ 711,085	$ (464,085)
Academic Counseling	---	24,665	(24,665)
Provision of Professional Training Facilities	---	3,950	(3,950)
Admissions	---	10,350	(10,350)
Registration and Allied Activities	---	14,390	(14,390)
Total Instruction	247,000	764,440	(517,440)
Research			
Research Projects	132,559	140,635	(8,076)
Faculty Development Time	---	21,970	(21,970)
Provision of Special Research Facilities	---	16,770	(16,770)
Total Research	132,559	179,375	(46,816)
Services to the Public			
Organized Teaching of Non-Credit Courses	13,000	20,680	(7,680)
Dissemination of Knowledge through Other Than Organized Teaching	---	65,352	(65,352)
Regulation and Inspection	---	---	---
Total Services to the Public	13,000	86,032	(73,032)
Services to the Academic Community			
Student Development			
Social-Psychological Counseling	---	17,775	(17,775)
Religious Training and Activities	---	---	---
Vocational Testing and Placement	---	10,050	(10,050)
Financial Aid			
Operation of Offices and Services	---	9,475	(9,475)
Payments to Students	10,000	35,000	(25,000)
Care, Subsistence, and Recreation			
Housing	58,993	54,693	4,300
Food Service	233,655	229,655	4,000
Health Service	19,600	21,000	(1,400)
Intercollegiate Athletics	24,000	33,800	(9,800)
Student Organizations and Activities	---	3,125	(3,125)
Total Services to the Academic Community	346,248	414,573	(68,325)
General Support			
Learning Resources	---	34,080	(34,080)
Plant Operation and Maintenance	---	189,750	(189,750)
Administration	---	44,115	(44,115)
Promotion and Development	---	4,400	(4,400)
General Institutional Expense	---	60,802	(60,802)
Total General Support	---	333,147	(333,147)
Transfers to Non-Operating Funds:			
To Plant Fund for Equipment	---	14,000	(14,000)
General Institutional Income	1,097,200	---	1,097,200
Total	$1,836,007	$1,791,567	$ 44,440

REPORT FORMAT 11

(EXAMPLE OF HISTORICAL COMPARISON)

FUNCTIONAL ALLOCATION OF DIRECT ACADEMIC STAFF
FALL TERM

Function Category	FTE Direct Academic Staff									
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
Instruction										
Organized Teaching of Degree-Credit Courses	372.6	408.2	392.5	424.2	432.1	456.2	486.2	540.0	589.7	622.6
Academic Counseling	17.6	14.6	44.2	40.9	36.2	35.1	43.0	38.6	45.4	47.9
Total Instruction	390.2	422.8	436.7	465.1	468.3	491.3	529.2	578.6	635.1	670.5
Research										
Research Projects	68.3	71.2	90.0	49.2	50.0	51.1	85.3	89.6	85.4	98.5
Faculty Development Time	13.3	21.6	28.0	24.4	23.3	24.3	33.9	37.5	32.5	26.0
Total Research	81.6	92.8	118.0	73.6	73.3	75.4	119.2	127.1	117.9	124.5
Services to the Public										
Organized Teaching of Non-Credit Courses	18.2	21.5	19.2	23.8	27.0	35.6	40.2	42.2	48.3	54.1
Dissemination of Knowledge - Other	38.8	26.3	27.4	28.7	32.4	11.4	17.5	8.8	14.3	12.5
Regulation and Inspection	16.7	16.7	17.1	17.1	17.6	11.6	10.0	8.2	8.2	8.0
Total Services to the Public	73.7	64.5	63.7	69.6	77.0	58.6	67.7	59.2	70.8	74.6
Total FTE Direct Academic Staff	545.5	580.1	618.4	608.3	618.6	625.3	716.1	764.9	823.8	869.6

	Ratio of FTE Direct Academic Staff Engaged in Named Function or Category to FTE Direct Academic Staff Engaged in Organized Teaching of Degree-Credit Courses									
	1956-57	1957-58	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
Academic Counseling	1:21.2	1:28.0	1: 8.9	1:10.4	1:11.9	1:13.0	1:11.3	1:14.0	1:13.0	1:13.0
Research										
Research Projects	1: 5.5	1: 5.7	1: 4.4	1: 8.6	1: 8.6	1: 8.9	1: 5.7	1: 6.0	1: 6.9	1: 6.3
Faculty Development Time	1:28.0	1:18.9	1:14.0	1:17.4	1:18.5	1:18.8	1:17.3	1:14.4	1:18.1	1:23.9
Total Research	1: 4.6	1: 4.4	1: 3.3	1: 5.8	1: 5.9	1: 6.1	1: 4.1	1: 4.2	1: 5.0	1: 5.0
Services to the Public										
Organized Teaching of Non-Credit Courses	1:20.6	1:19.0	1:20.4	1:17.8	1:16.0	1:12.8	1:12.1	1:12.8	1:12.2	1:11.5
Dissemination of Knowledge - Other	1: 9.6	1:15.5	1:14.3	1:14.8	1:13.3	1:40.0	1:27.8	1:61.4	1:41.2	1:49.8
Regulation and Inspection	1:22.3	1:24.4	1:23.0	1:24.8	1:24.6	1:39.3	1:48.6	1:65.9	1:71.9	1:77.8
Total Services to the Public	1: 5.1	1: 6.3	1: 6.2	1: 6.1	1: 5.6	1: 7.8	1: 7.2	1: 9.1	1: 8.3	1: 8.3
Total Other Than Organized Teaching of Degree-Credit Courses	1: 2.2	1: 2.4	1: 1.7	1: 2.3	1: 2.3	1: 2.7	1: 2.1	1: 2.4	1: 2.5	1: 2.5

REPORT FORMAT 12

(EXAMPLE OF INTERINSTITUTIONAL COMPARISON)

FUNCTIONAL ALLOCATION OF DIRECT ACADEMIC STAFF
FALL TERM

Function Category	FTE Direct Academic Staff			
	Institution A	Institution B	Institution C	Institution D
Instruction				
Organized Teaching of Degree-Credit Courses	622.6	726.3	287.4	581.0
Academic Counseling	47.9	27.8	25.7	36.3
Total Instruction	670.5	754.1	313.1	617.3
Research				
Research Projects	98.5	234.3	11.4	76.4
Faculty Development Time	26.0	64.3	7.2	31.9
Total Research	124.5	298.6	18.6	108.3
Services to the Public				
Organized Teaching of Non-Credit Courses	54.1	88.5	5.6	70.8
Dissemination of Knowledge - Other	12.5	27.8	6.0	13.3
Regulation and Inspection	8.0	22.9	0.0	7.0
Total Services to the Public	74.6	139.2	11.6	91.1
Total FTE Direct Academic Staff	869.6	1,191.9	343.3	816.7

	Ratio of FTE Direct Academic Staff Engaged in Named Function or Category to FTE Direct Academic Staff Engaged in Organized Teaching of Degree-Credit Courses			
	Institution A	Institution B	Institution C	Institution D
Academic Counseling	1:13.0	1:26.1	1:11.2	1:16.0
Research				
Research Projects	1: 6.3	1: 3.1	1:25.2	1: 7.6
Faculty Development Time	1:23.9	1:11.3	1:40.0	1:18.2
Total Research	1: 5.0	1: 2.4	1:15.5	1: 5.4
Services to the Public				
Organized Teaching of Non-Credit Courses	1:11.5	1: 8.2	1:51.2	1: 8.2
Dissemination of Knowledge - Other	1:49.8	1:26.1	1:47.6	1:43.6
Regulation and Inspection	1:77.8	1:31.7	---	1:82.5
Total Services to the Public	1: 8.3	1: 5.2	1:24.7	1: 6.4
Total Other Than Organized Teaching of Degree-Credit Courses	1: 2.5	1: 1.6	1: 5.1	1: 2.5

REPORT FORMAT 13

(EXAMPLE OF INTRAINSTITUTIONAL COMPARISON)

FUNCTIONAL ALLOCATION OF DIRECT ACADEMIC STAFF
FALL TERM

Function Category / College:	FTE Direct Academic Staff									
	Agriculture	Architecture	Arts and Sciences	Business	Education	Engineering	Law	Medicine	Nursing	Social Work
Instruction										
Organized Teaching of Degree-Credit Courses	33.5	7.5	109.4	74.5	41.0	48.4	11.2	33.5	9.8	3.8
Academic Counseling	--	--	6.0	4.2	6.3	--	--	--	--	1.1
Total Instruction	33.5	7.5	115.4	78.7	47.3	48.4	11.2	33.5	9.8	4.9
Research										
Research Projects	15.3	--	--	--	2.1	22.3	--	28.6	--	--
Faculty Development Time	4.2	2.0	1.4	2.5	--	--	--	3.2	--	--
Total Research	19.5	2.0	1.4	2.5	2.1	22.3	--	31.8	--	--
Services to the Public										
Organized Teaching of Non-Credit Courses	--	--	2.6	6.5	9.1	--	--	--	--	--
Dissemination of Knowledge - Other	26.3	1.1	--	3.4	--	4.9	2.1	--	--	1.0
Regulation and Inspection	8.2	--	--	--	--	7.5	--	1.0	--	--
Total Services to the Public	34.5	1.1	2.6	9.9	9.1	12.4	2.1	1.0	--	1.0
Total FTE Direct Academic Staff	87.5	10.6	119.4	91.1	58.5	83.1	13.3	66.3	9.8	5.9

College:	Ratio of FTE Direct Academic Staff Engaged in Named Function or Category to FTE Direct Academic Staff Engaged in Organized Teaching of Degree-Credit Courses									
	Agriculture	Architecture	Arts and Sciences	Business	Education	Engineering	Law	Medicine	Nursing	Social Work
Academic Counseling	--	--	1:18.2	1:17.7	1: 6.5	--	--	--	--	1: 3.5
Research										
Research Projects	1: 2.2	--	--	--	1:19.5	1: 2.2	--	1: 1.2	--	--
Faculty Development Time	1: 8.0	1: 3.8	1:78.1	1:29.8	--	--	--	1:10.5	--	--
Total Research	1: 1.7	1: 3.8	1:78.1	1:29.8	1:19.5	1: 2.2	--	1: 1.1	--	--
Services to the Public										
Organized Teaching of Non-Credit Courses	--	--	1:42.0	1:11.5	1: 4.5	--	--	--	--	--
Dissemination of Knowledge - Other	1: 1.3	1: 6.8	--	1:21.9	--	1: 9.8	1:5.3	--	--	1: 3.8
Regulation and Inspection	1: 4.1	--	--	--	--	1: 6.5	--	1:33.5	--	--
Total Services to the Public	1: 0.9	1: 6.8	1:42.0	1: 7.5	1: 4.5	1: 3.9	1:5.3	1:33.5	--	1: 3.8
Total Other Than Organized Teaching of Degree-Credit Courses	1: 0.6	1: 2.4	1:10.9	1: 4.5	1: 2.3	1: 1.4	1:5.3	1: 1.0	--	1: 1.8

REPORT FORMAT 14

(EXAMPLE OF POLICY VARIATION COMPARISON THROUGH PARTIAL MODEL SIMULATION)

PROJECTION OF NUMBER AND COST OF DIRECT ACADEMIC STAFF UNDER SIX HYPOTHETICAL POLICY ALTERNATIVES RELATING TO ACADEMIC COUNSELING AND RESEARCH
ACADEMIC YEAR

	FTE Direct Academic Staff					Average Academic Year Compensation Rate	Total Direct Academic Staff Compensation	Cost Over (Under) Present Policy		
	Instruction							For Change in Counselors	For Change in Researchers	Total
	Teachers	Counselors	Research	Services to the Public	Total					
Varying Academic Counseling and Research Ratios Only										
Alternative #1: Projection of Present Policy 1 FTE Counselor for 13 FTE Teachers 1 FTE Researcher for 5 FTE Teachers	622.6	47.9	124.5	74.6	869.6	$12,700	$11,043,920	$ ---	$ ---	$ ---
Alternative #2: 1 FTE Counselor for 13 FTE Teachers (Unchanged) 1 FTE Researcher for 4 FTE Teachers	622.6	47.9	155.6	74.6	900.7	12,700	11,438,890	---	394,970	394,970
Alternative #3: 1 FTE Counselor for 13 FTE Teachers (Unchanged) 1 FTE Researcher for 3 FTE Teachers	622.6	47.9	207.5	74.6	952.6	12,700	12,098,020	---	1,054,100	1,054,100
Alternative #4: 1 FTE Counselor for 18 FTE Teachers 1 FTE Researcher for 5 FTE Teachers (Unchanged)	622.6	34.6	124.5	74.6	856.3	12,700	10,875,010	(168,910)	---	(168,910)
Alternative #5: 1 FTE Counselor for 18 FTE Teachers 1 FTE Researcher for 4 FTE Teachers	622.6	34.6	155.6	74.6	887.4	12,700	11,269,980	(168,910)	394,970	226,060
Alternative #6: 1 FTE Counselor for 18 FTE Teachers 1 FTE Researcher for 3 FTE Teachers	622.6	34.6	207.5	74.6	939.3	12,700	11,929,110	(168,910)	1,054,100	885,190

REPORT FORMAT 15

(EXAMPLE OF POLICY DEVIATION COMPARISON)

COMPARISON OF ACTUAL NUMBER AND RATIO OF NON-TEACHING ACADEMIC STAFF WITH INSTITUTIONAL POLICY

	Policy FTE Direct Academic Staff		Actual FTE Direct Academic Staff		Deviation FTE Direct Academic Staff
	Ratio to Teachers	Number	Ratio to Teachers	Number	Actual Number Over (Under) Policy
(Number of FTE Academic Staff Engaged in Organized Teaching of Degree-Credit Courses = 622.6)					
Academic Counseling	1:12.0	51.9	1:13.0	47.9	(4.0)
Research					
Research Projects	1: 8.0	77.8	1: 6.3	98.5	20.7
Faculty Development Time	1:24.0	25.9	1:23.9	26.0	0.1
Total Research	1: 6.0	103.7	1: 5.0	124.5	20.8
Services to the Public					
Organized Teaching of Non-Credit Courses	1:12.0	51.9	1:11.5	54.1	2.2
Dissemination of Knowledge - Other	1:36.0	17.3	1:49.8	12.5	(4.8)
Regulation and Inspection	1:72.0	8.6	1:77.8	8.0	(0.6)
Total Services to the Public	1: 8.0	77.8	1: 8.3	74.6	(3.2)
Total FTE Direct Academic Staff Engaged in Other Than Organized Teaching of Degree-Credit Courses	1: 2.7	233.4	1: 2.5	247.0	13.6

GLOSSARY

Academic Counseling. An analytic category, within the function of Instruction, of environmental units providing formal assigned consultation with students by faculty members concerning the total academic program and progress of the student.

Actual Value Current Term. The assignment value actually applicable to the unit for the term under analysis which is always expressed in terms of full-time-equivalencies.

Administration. An analytic category, within the function of General Support, of support units providing the top level of general supervisory administration of the operations of the institution.

Administrative Academic. Those positions or assignments charged with the administration or supervision of two or more environmental units.

Administrative Academic Compensation. The compensation cost of the time spent by "first echelon" academic administrators, typically from department heads up through deans of colleges, or analogous ranges of positions (but not including an Academic Vice-President or Dean of Faculties or other top general office which is to be considered as part of the Administration category in the General Support function), on the administration and supervision of the activities within their responsibilities. Also to be considered as administrative academic time is that faculty time spent in such administrative-like activities as departmental or college committee work or curriculum revision, where such time is significant enough to be given an assignment value by the faculty member's immediate superior.

Admissions. An analytic category, within the function of Instruction, of support units concerned with screening, selecting, and admitting students to the institution for instruction.

Analytic Unit. A fundamental operating entity of the environment rendering a service which is substantially different from that rendered by any other unit of the environment. Environmental units and support units comprise the two varieties of analytic units.

Available Time Equivalent. The total amount of time, in relation to full time or 100 per cent, that an individual is available to the institution employing him.

Care, Subsistence, and Recreation. An analytic category, within the function of Services to the Academic Community, of support units providing for the bodily needs, the physical care, and the entertainment and recreation of students and/or staff (and occasionally or incidentally of the general public) in order that they may be adequately or conveniently sustained for participation in the educational activities of the institution.

Compensation. Those expenses incurred in payment for personal services rendered to the institution by the individual employee and consists of, specifically:

1. Gross cash salary of the individual from all institutional sources before deductions or exclusions.
2. Certain staff benefits, directly and explicitly identifiable with the individual as to dollar amount or value:
    a. Employer's FICA contribution.
    b. Employer's contribution to TIAA-CREF or state or other retirement fund, including amount or estimated amount contributed directly by state or other governmental unit or estimated present actuarial value accrued in unfunded plan.
    c. Employer's share of medical, hospital, accident, or life insurance premiums.
    d. Market value of goods or services provided to employee for personal use or consumption, e.g., housing, food, servants.

Contact Period. The institution's standard organized class period or periods, whatever lengths they may be.

Correspondence Study. A form of course organization characterized by an individual student working directly with an individual teacher entirely through the medium of written correspondence with no actual face-to-face contact between the student and the teacher required.

Course. An organized body of subject matter in which instruction is offered within a given period of time.

Course Divisions. Subdivisions of a course in which the same students are instructed through organizations with different characteristics. In a lecture-laboratory course, for example, the lecture would comprise one course division and the laboratory (or laboratories) another course division.

Course Load. The total number of courses for which the student is registered during the term under analysis.

Credit. The award to be granted for completing a course, usually described in semester, term, or quarter hours.

Degree. The title bestowed as official recognition for the completion of a curriculum, or for a certain attainment.

Direct Academic. Those positions or assignments which bring the employee into direct contact with the student or other consumer of the primary educational services of the institution in the process of supplying those services, or which otherwise bear major responsibility for carrying out the direct functions of the institution.

Dissemination of Knowledge through Other Than Organized Teaching. An analytic category, within the function of Services to the Public, of environmental units providing a whole range of activities and services of a "public service" nature that have accreted to institutions of higher learning but which have as a common characteristic the dissemination of knowledge by the professional staff of the institution through some medium, other than "Organized Teaching" as previously defined, to some segment of the public.

Environmental Unit. The fundamental operating entity of the environment with which the user comes into direct contact and which renders directly to him a service which is substantially different from that rendered by any other unit of the environment.

Experience Courses or Programs. A form of teaching unit organization characterized by the carrying on of the instructional process through the medium of apprenticeship or training of the student in the practical working situation of his field or profession. While the students registered in such a course may be identified as a group, the instructional process is normally a separate, individual experience for each student which may be carried on at different times and different places for members of the same group.

Faculty Development Time. An analytic category, within the function of Research, of environmental units providing compensated "released" time to members of the faculty to be used for informal, nonproject research or professional development or writing for publication, where formally recognized by the institution as part (or possibly all) of the faculty member's assignment for an instructional period.

Field of Study. The student's primary area of specialization.

Financial Aid. An analytic category, within the function of Services to the Academic Community, of support units involved in providing students with financial assistance toward meeting their expenses.

Full-Time Academic Load. The total workload which would be expected of and assigned to a full-time academic staff member during the term in question.

Full-Time-Equivalent Teacher. An academic staff member who devotes his entire time to teaching.

General Institutional Expense. An analytic category, within the function of General Support, of support units comprising all other expenditures (exclusive of Learning Resources, Plant Operation and Maintenance, Administration, and Promotion and Development) which are of a general character, not relating to any specific division of the institution. For subcategories, see page 179.

General Support. The fifth function of this analytic framework, which includes those activities supporting, rendering services to, or exercising responsibility for two or more of the other four functions. The General Support activities have as their "clientele" the four other functions and constitute a major portion of those expenses of operation frequently viewed as "overhead" or "indirect."

Group Instruction. A form of course organization characterized by an identifiable group of students studying a common course subject matter.

Immediate Support. The administrative and service assistance rendered to the direct academic by those organizational units of which he is part or which are closest to him. They also include those materials, supplies, and other expenses which are consumed directly by the direct academic and/or the users of the environmental unit.

Independent Study. All one teacher-one student relationships, both graduate and undergraduate, which carry a definite course identification except for graduate candidacies as defined herein.

Instruction. The methodical imparting of knowledge, through an active process involving teachers and students, resulting in formal credit toward an academic degree.

Joint Course Division Meetings. Two or more courses meeting in the same room at the same time under the same instructor.

Laboratory. A form of group instruction wherein the group meets together at the same time and place to actively work on practical problems illustrative of or arising from the course subject matter under the supervision of teaching personnel but with maximum emphasis on student participation and investigation. While the laboratory form of group instruction often involves special physical facilities, this is not an absolute requirement.

Language Laboratory. A physical language laboratory where carrels are made available to students and students may come at any time, as to a library, and listen to programmed tapes for language practice. Special assignments to these carrels may be made by instructors. It does not refer to actual laboratory instruction in a language which would be carried under the laboratory form of course organization within the Organized Teaching category of Instruction.

Learning Resources. An analytic category, within the function of General Support, of support units which provide physical, mechanical, or electronic repositories or processes for the storage, manipulation, or transmission of information or knowledge.

Lecture. A form of group instruction wherein the group meets together at the same time and place and both the direction of the class and the presentation of the subject matter are the sole responsibility of the teacher. While active student participation may be sought, it is not considered to be an absolute requirement for the successful conduct of the class.

Level of Instruction. A classification of course offerings as to the primary purpose of each course in relation to the classification of students for which it was primarily designed.

Multi-Section Course Division. A course division which has been divided into more than one section.

Non-Academic. All positions or assignments not included in the direct academic or administrative academic definitions.

One Teacher-One Student Relationships. A form of course organization characterized by an individual student working and actually coming in contact directly with an individual teacher or teachers on a course subject matter or subdivision of subject matter which is peculiar to that particular student.

Optimum Assignment Value. The full-time-equivalent value of the unit being analyzed as calculated from the policy.

Optimum Size. The number of student registrations determined to be the most desirable for instructional purposes in any particular course division.

Organized Teaching of Degree-Credit Courses. An analytic category, within the function of Instruction, of environmental units providing instruction of students in organized courses offered for credit or advancement towards an academic degree or designed to enable students to qualify for such courses, including any and all formal arrangements and assignments for contact between teachers and students for such instructional purposes.

Organized Teaching of Non-Credit Courses. An analytic category, within the function of Services to the Public, of environmental units providing instruction for members of the general public in organized teaching situations which do not carry credit towards a degree offered by the institution and are not designed to enable students to qualify for degree-credit courses. This would include non-credit courses; short-term institutes, workshops, and conferences; and courses in military training whether credit is granted for military courses or not.

Other Instructional Arrangements for Groups. A form of group instruction wherein the group does not meet together at the same time and place but where a common course subject matter is studied by individual members of the group acting separately but under common direction such as might be supplied by common syllabi or the use of some learning resource such as programmed instruction or television, or a group instructional arrangement which does not conform to normal institutional periods and times such as a short-term institute, conference, or workshop.

Personal Compensation. The dollar cost, accompanied by the FTE value, of that time of any employee assigned to a support unit.

Plant Operation and Maintenance. An analytic category, within the function of General Support, of support units for operating and maintaining the normal physical locus for the educational activities of the institution.

Progress Category. A classification of the student in terms of his progress toward the degree which he is seeking in the institution.

Progress Term. The regular academic teaching period of the institution being analyzed.

Promotion and Development. An analytic category, within the function of General Support, of support units designed to promote and maintain a favorable level of support, both financial and otherwise, from the community at large.

Provision of Professional Training Facilities. An analytic category, within the function of Instruction, of support units providing special environments which are primarily for the training or teaching of the student in the practical working situation of his field or profession and which invariably have some marketable "by-product." The training facility may be provided either through the institution creating and maintaining it or through the purchase of the use of such a facility from an outside source. The existence of a marketable by-product is essential for an activity to be placed in this category, whether that product (or service) is actually sold or not.

Provision of Special Research Facilities. An analytic category, within the function of Research, of support units providing the operation of facilities or special environments that may serve or be utilized by a number of research projects.

Registration and Allied Activities. An analytic category, within the function of Instruction, of support units concerned with bringing students and teachers together for courses of instruction and recording and transmitting the results thereof. Included are the activities and processes of registration, class scheduling, assignment of instructional space, production of class rolls, recording and transcribing student grades, and the printing of course catalogs and bulletins.

Regulation and Inspection. An analytic category, within the function of Services to the Public, of environmental units providing non-instructional, non-research, routine services, for government or industry or other segment of the public, which are required for the regulation or inspection of products, persons, or organizations.

Research. Critical and exhaustive investigation or experimentation having for its aim the discovery of new facts and their correct interpretation, the revision of accepted conclusions, theories or laws in the light of newly discovered facts, or the practical application of such new or revised conclusions, theories, or laws, including the training of students through such investigation or experimentation.

Research Projects. An analytic category, within the function of Research, of environmental units carrying on the substantive research (as opposed to those units which provide special research facilities that may serve or be utilized by a number of research projects) undertaken by the institution where the objective and subject matter is clearly recognizable and identified.

Research Projects Involving Neither Teachers Nor Students. An analytic subcategory which includes those research projects that do not involve students of the subject matter field actively and substantially in the investigatory process, and the professional staff of which do not formally participate in the organized teaching function of the institution.

Research Projects Involving Students. An analytic subcategory which includes those research projects wherein students actively and substantially participate in the investigatory process. Such participation must require some knowledge of the subject matter field. Students involved may or may not be compensated for their participation.

Research Projects Involving Teachers But Not Students. An analytic subcategory which includes those research projects that do not involve students of the subject matter field actively and substantially in the investigatory process, but which are carried on by or do substantially involve members of the faculty who also formally participate in the organized teaching function of the institution.

Sections. Subdivisions of a course division in which instruction is offered in the same organized body of subject matter and through the same form of organization to separate groups of different students meeting at differing times and/or places within the same academic term.

Seminar, Discussion, or Quiz. A form of group instruction wherein the group meets together at the same time and place and both the direction of the class and the presentation of the subject matter constitute a responsibility that is shared jointly by the teacher and the students. Active student participation is considered to be an absolute requirement for the successful conduct of the class.

Services to the Academic Community. Those activities, facilities, organizations, and enterprises within institutions of higher learning which provide services which are not educational in themselves but which have as their purpose the fulfillment of personal individual needs of members of the academic community. Such services are provided directly to individual students and staff and occasionally or incidentally to members of the general public. These services are ancillary or expeditious rather than essential to the primary educational functions.

Services to the Public. Those educational activities of the institution which are neither Instruction nor Research as defined and which primarily serve a clientele other than the institution's own staff and degree-credit students are conceived in this analytic framework to constitute the primary function Services to the Public.

Single-Section Course Division. A course division which is made up of only one section.

Social-Psychological Counseling. The personal guidance and counseling given to students in the institutional situation as distinguished from the academic counseling which is included as a part of the Instruction function.

Student Course. One enrollment by a student in one course. Since a student may, and normally does, enroll in more than one course, one student may account for more than one student course.

Student Development. An analytic category, within the function of Services to the Academic Community, of support units established to encourage or stimulate development of aspects of the individual student other than the purely academic or intellectual.

Student Registration. One enrollment by a student in one course division or section of a course division. Registrations refer only to the number of enrollments, not to the individual person. One student may account for more than one registration.

Supervision of Graduate Candidacies. The primary responsibility (major professor or committee chairman) for those elements of graduate degree candidacies which are normally supervised by a graduate committee (preliminary examination, thesis or dissertation, final examination) whether informally recorded by student course registration or not.

Supplies and Expense. All current operating expenses other than compensation for personal services.

Support Unit. A fundamental operating unit of the environment performing services which are of a secondary nature, designed either to assist the environmental units involved in the basic primary functions or to assist the individuals being served by those environmental units.

Term. The instructional academic period of an institution.

Term Hour. Sixty minutes elapsed time of instructional contact between the student or students and the teacher, either in a formally organized class or in other organized meetings, consultations, or discussions.

Unit Designation. The peculiar identification given to any particular environmental unit by the institution of which it is a part.

Utilization Factor. The service recipient or user of any particular environmental unit.

APPENDIX A

CLASSIFICATION OF DEGREES AND FIELDS OF STUDY "BACHELOR'S AND HIGHER DEGREES CONFERRED" OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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CATEGORIES OF DEGREES

(See Office of Education form OE 2024, rev. 1965.)

(a) Bachelor's Degrees requiring at least four but less than five years of academic work. Report all bachelor's degrees in columns 2-3 of the report-form. Also, report all Bachelor's degrees conferred in a co-operative plan or program (also referred to as work-study plan or program) in columns 2-3. These programs provide for alternate attendance at class and employment in business, industry, or government. Under the co-operative plan the student combines actual working experience with his college studies.

(b) First-Professional Degrees Requiring 5 or More Years. The first-professional degree signifies the completion of the academic and professional training requirements for a degree. Bachelor's degrees which require 5 or more years of academic work are considered for purposes of this report to be first-professional degrees. Some examples of these are 5 or more year degrees in Engineering, Forestry, Law, Architecture, Education, Theology, Hospital Administration, Public Administration, Social Work, and Pharmacy. Master's degrees in such fields as Business Administration, Education, Law, Theology, Social Work, and Hospital Administration may be first-professional degrees. Doctor's degrees in certain fields are first-professional degrees, such as the J.D., M.D., D.D.S., and V.V.M. Report all degrees as described above in columns 4-5.

(c) Master's Degrees. The master's degree is a degree beyond the 4-year bachelor's but below the doctorate. For exceptions in certain of the professional fields, see paragraph 7(b). Master's degrees in professional fields include both the second-professional degree (such as M.S. in Electrical Engineering, M.Arch., and L.L.M.) and higher professional degrees which are, however, below the level of the doctorate (such as the degree of Education Specialist, E.E. or Electrical Engineer). Please report all master's degrees (except when the master's is a first-professional) in columns 6-7 of the report-form.

(d) Doctorate. The doctorate classification in professional fields includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Ph.D. degree in any professional field--whether Agronomy, Food Technology, Education, Engineering, Public Administration, Ophthalmology, Radiology, etc. (In the case of the Doctor of Public Health, the prior professional degree is generally earned in the closely related professional field of medicine or of sanitary engineering.) Please report the doctor's degrees in columns 8-9 of the report-form.

CLASSIFICATION OF DEGREES WITH RESPECT TO MAJOR FIELD OF STUDY

(See Office of Education form OE 2024, rev. 1965, for complete classification and instructions.)

10 Agriculture

1001	Agriculture, General
1002	Agronomy
1003	Agriculture
1004	Animal Science
1007	Dairy Science
1013	Farm Management
1014	Wildlife Management
1016	Food Technology
1019	Horticulture
1020	International Agriculture
1022	Ornamental Horticulture
1025	Poultry Science
1028	Soil Science
1037	Agriculture, other fields of study not listed above (specify)
1099	Agriculture, field of study not identified

17 Biological Sciences

1701	Pre-Medical, Pre-Dental, and Pre-Veterinary Sciences
1704	Biology, General
1707	Botany, General
1710	Zoology, General
1713	Anatomy and Histology
1716	Bacteriology, Virology, Mycology, Parasitology, Microbiology
1721	Biochemistry
1724	Biophysics
1727	Cytology
1729	Ecology
1730	Embryology
1733	Entomology
1736	Genetics
1737	Nutrition
1739	Optometry (Pre-professional)
1742	Pathology
1745	Pharmacology
1748	Physiology
1751	Plant Pathology
1754	Plant Physiology
1757	Biological Sciences, other fields of study not listed above (specify)
1799	Biological Sciences, field of study not identified

20	Business and Commerce
2001	Business and Commerce, General
2002	Accounting
2004	Hotel and Restaurant Administration
2007	Secretarial Studies
2056	Business and Commerce, other fields of study not listed above (specify)
2099	Business and Commerce, field of study not identified
21	Computer Science and Systems Analysis
2105	Data Processing
2110	Computer Science
2120	Systems Analysis
2198	Computer Science and Systems Analysis, other fields of study not listed above (specify)
2199	Computer Science and Systems Analysis, field of study not identified
23	Education
	Specialized Teaching Fields
2301	Physical Education
2304	Health Education
2307	Recreation
2310	Education of Exceptional Children
2311	Education of the Partially Sighted
2312	Education of the Blind
2313	Education of the Mentally Retarded
2314	Education of the Emotionally Disturbed
2315	Education of the Deaf
2316	Speech and Hearing
2317	Education of the Crippled
2319	Agricultural Education
2322	Art Education
2325	Business Education
2328	Distributive Education
2331	Home Economics Education
2333	Industrial Arts Education (non-vocational)
2336	Music Education
2339	Trade and Industrial Education (vocational)
2342	Specialized Teaching Fields, other fields of study not listed above (specify)
	General Teaching Fields
2350	Nursery and/or Kindergarten Education
2353	Early Childhood Education
2356	Elementary Education
2359	Secondary Education
2362	Combined Elementary and Secondary Education
2365	Adult Education
2368	General Teaching Fields, other fields of study not listed above (specify)
	Other Education Fields
2371	Educational Administration
2372	Counseling and Guidance

	2373	Rehabilitation Counselor Training
	2374	Theory of Education
	2375	Curriculum and Instruction
	2376	Education, General
	2377	Educational Psychology
	2378	Physical Education - Non-teaching
	2380	Pre-professional Bachelor's Degree in Education
	2382	Other Education Fields, other fields of study not listed above (specify)
	2399	Education, field of study not identified
26	Engineering	
	2602	Aerospace and Aeronautical Engineering
	2607	Agricultural Engineering
	2608	Architectural Engineering
	2614	Chemical Engineering
	2621	Civil Engineering
	2632	Electrical Engineering
	2645	Engineering Sciences
	2646	Environmental Health and Sanitary Engineering
	2647	General Engineering
	2649	Geological Engineering
	2653	Industrial and Management Engineering
	2660	Mechanical Engineering
	2670	Metallurgical and Ceramics Engineering
	2672	Mining Engineering
	2674	Naval Architecture and Marine Engineering
	2678	Petroleum Engineering
	2697	Engineering, other fields of study not listed above (specify)
	2699	Engineering, other field of study not identified
29	English and Journalism	
	2901	English and Literature
	2904	Journalism
32	Fine and Applied Arts	
	3201	Art, General
	3204	Music
	3207	Speech and Dramatic Arts
	3213	Fine and Applied Arts, other fields of study not listed above (specify)
	3299	Fine and Applied Arts, field of study not identified
35	Foreign Languages and Literature	
	3501	Linguistics
	3511	Latin and/or Classical Greek
	3520	French
	3522	Italian
	3524	Portuguese
	3526	Spanish
	3528	Philology and Literature of Romance Languages
	3540	German

	3546	Other Germanic Languages
	3548	Philology and Literature of Germanic Languages
	3560	Arabic
	3564	Chinese
	3568	Hebrew
	3572	Hindi and/or Urdu
	3576	Japanese
	3580	Russian
	3586	Other Slavic Languages
	3590	Foreign Languages and Literature, other fields of study not listed above (specify)
	3599	Foreign Languages and Literature, field of study not identified
38	Forestry	
	3800	Forestry
41	Geography	
	4100	Geography
44	Health Professions	
	4401	Chiropody or Podiatry
	4404	Dental Hygiene
	4407	Dentistry
	4410	Hospital Administration
	4413	Medical Technology
	4416	Medicine, M.D. only
	4419	Nursing and/or Public Health Nursing
	4422	Occupational Therapy
	4425	Optometry
	4426	Osteopathy
	4431	Pharmacy
	4434	Physical Therapy
	4437	Public Health
	4440	Radiologic Technology
	4443	Veterinary Medicine, D.V.M. only
	4446	Clinical Dental Sciences
	4449	Clinical Medical Sciences
	4452	Clinical Veterinary Medical Sciences
	4455	Health Professions, other fields of study not listed above (specify)
	4499	Health Professions, field of study not identified
47	Home Economics	
	4701	Home Economics, General
	4704	Child Development, Family Relations
	4707	Clothing and Textiles
	4710	Foods and Nutrition
	4713	Institution Management
	4719	Home Economics, other fields of study not listed above (specify)
	4799	Home Economics, field of study not identified

50 Law
- 5000 Law (LL.B., J.D., or higher degrees)

53 Library Science
- 5300 Library Science

56 Mathematical Subjects
- 5601 Mathematics
- 5607 Statistics and Actuarial Science

59 Merchant Marine
- 5900 Merchant Marine (deck officer only)

62 Military, Naval, or Air Force
- 6200 Military, Naval, or Air Force Science

65 Philosophy
- 6501 Philosophy
- 6504 Scholastic Philosophy

68 Physical Sciences
- 6801 Physical Sciences, General
- 6804 Astronomy
- 6807 Chemistry
- 6810 Metallurgy
- 6813 Meteorology
- 6815 Pharmaceutical Chemistry
- 6816 Physics
- Earth Sciences
- 6819 Geology
- 6822 Geophysics
- 6825 Oceanography
- 6828 Earth Sciences, other fields of study not listed above (specify)
- Physical Sciences
- 6831 Physical Sciences, other fields of study not listed above (specify)
- 6899 Physical Sciences, field of study not identified

71 Psychology
- 7101 General Psychology
- 7102 Clinical Psychology
- 7103 Counseling Psychology
- 7104 Social Psychology
- 7105 Rehabilitation Counselor Training
- 7106 Educational Psychology
- 7110 Psychology, other fields of study not listed above (specify)
- 7199 Psychology, field of study not identified

74	Religion	
	7401	Religious Education and Bible
	7404	Theology (first professional ministerial degree)
	7407	Theology (master's and doctor's degrees only)
	7410	Religion (liberal arts curriculum)
	7413	Religion, other fields of study not listed above (specify)
	7499	Religion, field of study not identified
77	Social Sciences	
	Basic Social Sciences	
	7701	Social Sciences, General
	7704	American Civilization and Culture
	7707	Anthropology
	7710	Area and/or Regional Studies
	7713	Economics
	7716	History
	7719	International Relations
	7722	Political Science or Government
	7725	Sociology
	7728	Basic Social Sciences, other fields of study not listed above (specify)
	Applied Social Sciences	
	7731	Agricultural Economics
	7734	Foreign Service Programs
	7737	Industrial Relations
	7740	Public Administration
	7743	Social Work
	7746	Applied Social Sciences, other fields of study not listed above (specify)
	7799	Social Sciences, field of study not identified
80	Trade and Industrial Training	
	8000	Trade and Industrial Training (not Trade and Industrial Teacher Training - see 2339)
83	Broad General Fields	
	8301	Arts, General Program
	8304	Sciences, General Program
	8307	Arts and Sciences General Program
	8310	Teaching of English as a Foreign Language
	8313	Inter-area and inter-fields of study (specify)
	8314	Fields of study not listed above (specify)
	8399	Field of study not identified

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APPENDIX B

FORM LETTER ANNOUNCING PROJECT SENT TO 1,400 INSTITUTIONS OF HIGHER LEARNING IN THE UNITED STATES

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October 18, 1963

Dr. James S. Coles
President
Bowdoin College
Brunswick, Maine

Dear President Coles:

This office has recently been established by the Institute of Public Administration of The University of Michigan to carry out a research project designed to develop nationally acceptable principles, procedures, and standards for the accumulation and analysis of data related to the operation of colleges and universities. The enclosed brochure will give you a more detailed description of the project.

As I know you are aware, studies and analyses comparing institutions are produced periodically by one method or another. In working toward valid and acceptable methods, it is important that our research extend broadly and encompass a variety of institutions with different settings, sizes, missions, and programs. To accomplish this, we hope to work closely with a large number of institutions. At the present time, we are proposing to select a sample of about 100 out of the 2,000 institutions in the United States for a more intensive investigation. In the case of these sample institutions, members of our staff will visit their campuses and talk with various officials concerning the types of activities which are being carried on, rather than rely on mailed questionnaires.

Although we have not as yet selected these institutions, if you think that you might be interested in cooperating, we would be pleased to know about it. In addition, we would appreciate any comments or suggestions you might have concerning the project and would be most happy to supply any additional information which you might desire.

Sincerely yours,

John E. Swanson

JES:mpk

Enclosure

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APPENDIX C

THE SELECTION OF THE SAMPLE OF INSTITUTIONS TO BE SURVEYED BY THE PROJECT STAFF

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THE SELECTION OF THE SAMPLE OF INSTITUTIONS TO BE SURVEYED BY THE PROJECT STAFF

Purpose

The proposed survey of a sample of 110 institutions by the Project staff is of significance to the total study. There are two primary purposes for conducting the survey. First, the survey would give the staff the opportunity to conduct an intensive study of the various methods of financial analysis now in use in diverse institutions of higher education. This study would hopefully give the staff better concepts of existing methods of financial analysis. Second, the survey would give the staff the opportunity to subject some of its own ideas to the critical evaluation of persons who are working in institutions with the problems of financial analysis. The proposed survey would also provide some indication as to what institutions would be willing to cooperate in the "trial runs" of the Project recommendations.

Response to October Mailing

Our letter and brochure were mailed to the presidents of approximately 1,400 institutions of higher education on October 18. The primary purpose of this mailing was to make the institutions aware of the Project's existence, and set out its objectives in a brief explanation. We did, however, ask that those institutions who felt that they would be interested in being a part of the sample give us an indication of their interest. The response to this inquiry has been most encouraging. As of November 12, we had received 391 responses to our mailing. Of the total responses, 363 institutions indicated that they were interested in participating in our survey. The remaining 28 institutions indicated that they felt they could not participate in the survey. Most of these 28 institutions were small, private institutions, and their reasons for not being able to participate were mostly that they were involved in time-consuming programs and would not be able to devote enough time to the study to make their contribution of sufficient value.

The affirmative responses to our letter have generally expressed a feeling that the Project and its objectives are of vital concern to all colleges and universities. The affirmative responses of the institutions have been enthusiastic in expressing their willingness to cooperate in the study. The institutions have been overwhelmingly in favor of the personal visit and study by staff members as opposed to the questionnaire approach. The responses have also included several meaningful comments and suggestions. They have referred us to similar studies and experiments being conducted by individual institutions and groups of institutions. We have been referred by several state institutions to a governing board, or coordinating group, who appear to be doing some meaningful work in the financial analysis of operations in state systems of higher education; for example, Utah, New Mexico, and Arizona. This has also been true of the church-related institutions. The American Lutheran Church has a Board of College Education which supervises, audits, and analyzes the financial operations of several Lutheran institutions of higher learning.

The responses to our letter have covered practically every type and size institution in every section of the country, including Hawaii and Puerto Rico. The greatest response, as expected, has come from those states with many institutions, such as Massachusetts, New York, Pennsylvania, Ohio, Texas, and California. In each of these states practically every type of institution has sent an affirmative reply. The responses from institutions include 44 junior colleges which include liberal arts and general, technical, and terminal-occupational programs. The remaining responses are from degree-granting institutions and they include practically every kind of institution from the small, private, liberal arts college to the large private and public universities. From this group, we have received affirmative replies from several technical institutions, professional schools, men's colleges, and women's colleges.

Below is a simple breakdown of the institutions who have responded to our letter by type of control or affiliation, and by size of enrollment as reported in the Education Directory, Part 3, 1962-1963.

By Control:

State	Church	Private	Municipal	U.S.	Public District
135	134	92	9	3	18

By Size of Enrollment:

1-500	501-1,000	1,001-2,000	2,001-5,000	5,001-10,000	10,001-20,000	Over 20,000
43	84	102	79	47	24	12

Bases for Sample Selection

Several months ago Dr. Maloon suggested several "classes" or bases for selecting a sample of institutions to be studied. Given the diversity of American higher education, such bases for selecting a sample of institutions could go on and on. The sample for our study should, without doubt, be selected on a broad basis in regard to the type of institutions. The sample should also be selected on bases that are closely related to the objectives of the project. There are several bases which the staff members have been considering as the possible bases for selecting the 110 institutions to be surveyed by the project staff. These bases for selection are listed below. The reactions of the Advisory Committee to these possible bases, and the addition of others, would be helpful.

1. Size of enrollment
2. Type of control (State, church, private, municipal, etc.)
3. Degree of control (particularly State institutions)
4. Level of degree offering (2-year, bachelor, master's, doctorate)
5. Program objective (technical, professional, general liberal arts, etc.)
6. Methods of financing (private contributions, all tuition, State appropriations, etc.)
7. Methods of financial analysis (particularly those that are new, or unique)
8. Curriculum and program (especially unique curriculum structuring, course structures, cooperative programs, etc.)
9. Indication by informed persons of a few institutions considered to be of "high quality," and a few considered to be "poor quality," and then study a few of each.
10. Accounting classification systems (perhaps institutions who follow ACE recommendations closely compared with those who don't)

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APPENDIX D

SURVEY SAMPLE OF INSTITUTIONS AND AGENCIES

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SURVEY SAMPLE OF INSTITUTIONS AND AGENCIES

INSTITUTIONS BY GEOGRAPHICAL AREA AND TYPE OF CONTROL

NORTH ATLANTIC

Public

1. University of Connecticut, Storrs, Connecticut
2. University of Delaware, Newark, Delaware
3. State College at Lowell, Lowell, Massachusetts
4. Keene State College, Keene, New Hampshire (now part of University of New Hampshire)
5. Newark College of Engineering, Newark, New Jersey
6. Alfred University, Alfred, New York (State)
7. Orange County Junior College, Middletown, New York
8. U. S. Military Academy, West Point, New York
9. Shippensburg State College, Shippensburg, Pennsylvania
10. University of Rhode Island, Kingston, Rhode Island
11. Johnson State College, Johnson, Vermont
12. University of Vermont, Burlington, Vermont

Private

1. University of Hartford, Hartford, Connecticut
2. Wesleyan University, Middletown, Connecticut (men)
3. Bowdoin College, Brunswick, Maine
4. Boston University, Boston, Massachusetts
5. Massachusetts Institute of Technology, Cambridge, Massachusetts
6. Smith College, Northampton, Massachusetts
7. Tufts University, Boston, Massachusetts
8. Princeton University, Princeton, New Jersey
9. Upsala College, East Orange, New Jersey
10. Columbia University, New York, New York
11. Cornell University, Ithaca, New York
12. Union College and University, Schenectady, New York
13. Chatham College, Pittsburgh, Pennsylvania
14. Gannon College, Erie, Pennsylvania
15. University of Pittsburgh, Pittsburgh, Pennsylvania
16. Bennington College, Bennington, Vermont

SOUTHEAST

Public

1. Alabama College, Montevallo, Alabama
2. University of Arkansas, Fayetteville, Arkansas
3. Florida Atlantic University, Boca Raton, Florida
4. Miami-Dade Junior College, Miami, Florida
5. Georgia Institute of Technology, Atlanta, Georgia
6. Medical College of Georgia, Augusta, Georgia
7. Morehead State College, Morehead, Kentucky
8. East Central Junior College, Decatur, Mississippi
9. Appalachian State Teachers College, Boone, North Carolina
10. University of South Carolina, Columbia, South Carolina
11. University of Tennessee, Knoxville, Tennessee
12. University of Virginia, Charlottesville, Virginia
13. Virginia Military Institute, Lexington, Virginia
14. Potomac State College, Keyser, West Virginia
15. West Virginia University, Morgantown, West Virginia

Private

1. Tuskegee Institute, Tuskegee Institute, Alabama
2. George Washington University, Washington, D. C.
3. New College, Sarasota, Florida
4. University of Miami, Coral Gables, Florida
5. Emory University, Atlanta, Georgia
6. Berea College, Berea, Kentucky
7. Villa Madonna College, Covington, Kentucky
8. Duke University, Durham, North Carolina
9. Pfeiffer College, Misenheimer, North Carolina
10. George Peabody College for Teachers, Nashville, Tennessee

GREAT LAKES

Public

1. Chicago City Junior College, Chicago, Illinois
2. Indiana State College, Terre Haute, Indiana
3. State College of Iowa, Cedar Falls, Iowa
4. Kansas State University, Manhattan, Kansas
5. Washburn University, Topeka, Kansas
6. Eastern Michigan University, Ypsilanti, Michigan
7. Michigan Technological University, Houghton, Michigan
8. Wayne State University, Detroit, Michigan
9. University of Minnesota, Minneapolis, Minnesota
10. Northeast Missouri State College, Kirksville, Missouri

11. University of Missouri, Columbia, Missouri
12. Wayne State College, Wayne, Nebraska
13. University of North Dakota, Grand Forks, North Dakota
14. Ohio University, Athens, Ohio
15. University of Cincinnati, Cincinnati, Ohio
16. General Beadle State Teachers College, Madison, South Dakota
17. University of South Dakota, Vermillion, South Dakota
18. University of Wisconsin, Madison, Wisconsin
19. Wisconsin State College, Whitewater, Wisconsin

Private

1. Illinois Institute of Technology, Chicago, Illinois
2. Loyola University, Chicago, Illinois
3. Roosevelt University, Chicago, Illinois
4. DePauw University, Greencastle, Indiana
5. Rose Polytechnic Institute, Terre Haute, Indiana
6. Saint Mary-of-the-Woods College, Terre Haute, Indiana
7. Cornell College, Mt. Vernon, Iowa
8. Alma College, Alma, Michigan
9. Augsburg College, Minneapolis, Minnesota
10. Carleton College, Northfield, Minnesota
11. Stephens College, Columbia, Missouri
12. Tarkio College, Tarkio, Missouri
13. Oberlin College, Oberlin, Ohio
14. University of Dayton, Dayton, Ohio

WEST

Public

1. University of California, Berkeley, California
2. Colorado State University, Ft. Collins, Colorado
3. University of Colorado, Boulder, Colorado
4. University of Idaho, Moscow, Idaho
5. Montana State University, Missoula, Montana
6. University of Nevada, Reno, Nevada
7. University of New Mexico, Albuquerque, New Mexico
8. University of Oklahoma, Norman, Oklahoma
9. Portland State College, Portland, Oregon
10. Temple Junior College, Temple, Texas
11. University of Texas, Austin, Texas
12. University of Utah, Salt Lake City, Utah
13. Eastern Washington State College, Cheney, Washington
14. Washington State University, Pullman, Washington
15. University of Wyoming, Laramie, Wyoming

Private

1. California Institute of Technology, Pasadena, California
2. Pacific Oaks College, Pasadena, California
3. University of Redlands, Redlands, California
4. University of Southern California, Los Angeles, California
5. University of Denver, Denver, Colorado
6. Lewis and Clark College, Portland, Oregon
7. University of Portland, Portland, Oregon
8. Rice University, Houston, Texas
9. Southern Methodist University, Dallas, Texas

GOVERNING BOARDS AND COORDINATING AGENCIES

1. Arkansas Commission on Coordination of Higher Educational Finance, Little Rock, Arkansas
2. The California State Colleges, Office of the Chancellor, Inglewood, California
3. Board of Regents of the University System of Georgia, Atlanta, Georgia
4. Kentucky State Council of Public Higher Education, Frankfort, Kentucky
5. Michigan Council of State College Presidents, Lansing, Michigan
6. Board of College Education, The American Lutheran Church, Minneapolis, Minnesota
7. The University of Montana, State System of Higher Education, Helena, Montana
8. New Mexico Board of Educational Finance, Santa Fe, New Mexico
9. Oklahoma State Regents for Higher Education, Oklahoma City, Oklahoma
10. Oregon State System of Higher Education, Eugene, Oregon
11. Texas Commission on Higher Education, Austin, Texas
12. Christian Education Commission, Baptist General Convention of Texas, Dallas, Texas
13. Utah Coordinating Council of Higher Education, Salt Lake City, Utah
14. Vermont State Colleges, Burlington, Vermont
15. Virginia State Council of Higher Education, Richmond, Virginia
16. Wisconsin Board of Regents of State Colleges, Madison, Wisconsin

STATE BUDGET AGENCIES

1. Budget Division, Department of Finance, State of California, Sacramento, California
2. Colorado State Budget Office, Denver, Colorado

3. Department of Finance and Control, State of Connecticut, Hartford, Connecticut
4. Division of the Budget, Kentucky State Department of Finance, Frankfort, Kentucky
5. Budget Division, Department of Administration, State of Michigan, Lansing, Michigan

INTERSTATE COMPACT AGENCIES

1. New England Board of Higher Education, Winchester, Massachusetts
2. Southern Regional Education Board, Atlanta, Georgia
3. Western Interstate Commission for Higher Education, Boulder, Colorado

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APPENDIX E

DISTRIBUTION OF SURVEY SELECTION

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DISTRIBUTION OF SURVEY SELECTION

TOTAL INSTITUTIONS - 110

BY CONTROL

Region	State	Church	Private	Municipal	Public District	National
North Atlantic	10	2	14	0	1	1
Southeast	13	4	6	0	2	0
Great Lakes	16	6	8	2	1	0
Western	14	6	3	1	0	0
	53	18	31	3	4	1

BY SIZE OF ENROLLMENT

Region	0	1-500	501-1,000	1,001-2,000	2,001-5,000	5,001-10,000	10,001-15,000	15,001-20,000	Over 20,000
North Atlantic	0	1	5	6	7	4	3	1	1
Southeast	2	1	3	5	5	5	4	0	0
Great Lakes	0	3	3	4	9	7	1	2	4
Western	0	1	1	5	5	6	2	2	2
	2	6	12	20	26	22	10	5	7

BY DEGREE LEVEL*

Region	I	II	III	IV	0	TOTAL
North Atlantic	1	7	6	14	0	28
Southeast	3	4	5	11	2	25
Great Lakes	1	9	12	11	0	33
Western	1	1	4	18	0	24
	6	21	27	54	2	110

*Key for degree level:
I - 2 but less than 4 years of work beyond 12th grade.
II - Only the bachelor's and/or first professional degree.
III - Master's and/or second professional degree.
IV - Doctor of philosophy and equivalent degrees.
Key taken from Education Directory 1962-63, Part 3, p. 1.

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APPENDIX F

LETTER INFORMING INSTITUTIONS OF THEIR SELECTION AS PART OF THE INSTITUTIONAL SAMPLE AND REQUESTING MATERIALS TO BE CONTRIBUTED BY THE INSTITUTION

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December 3, 1963

Dr. James S. Coles
President
Bowdoin College
Brunswick, Maine

Dear President Coles:

Thank you for your letter expressing your interest in this project and the willingness of your institution to participate if selected in our sample.

Your institution has now been selected as one of the approximately 100 colleges and universities with which we want to work. As indicated previously, we plan to rely upon a single visit, by one or more of the members of our staff, to the campus of each of the participating institutions for personal interviews in some depth with appropriate officers and staff. Such a visit would vary in total length from a minimum of several hours to a maximum of several days, depending upon the size, complexity, and other characteristics of the institution.

We do not anticipate making requests for the collection of data or for the filling out of questionnaires that would require substantial additional time of your staff. There are, however, certain types of publications and other materials concerning your institution that might be readily available and that we would like to have and peruse prior to our visit in order to expedite the subsequent interviews. If you are disposed to formally commit your institution to participation, we would appreciate your sending us at your earliest convenience one copy, preferably the latest, of each of the following (or similar) items that might be readily available:

Catalogue
Schedule of classes
Financial report
Budget
Annual report of the president
Organizational chart
Chart of accounts, or other description of
    accounting system
Manual of institutional policies or regulations
Faculty handbook
Student handbook

Special or continuing analyses concerning finances or resource utilization: unit costs (e.g., cost per student, cost per credit hour), student-teacher ratios, class-size data, faculty time utilization or load studies, faculty salary studies, overhead distributions or allocations, space utilization studies, workload data used by management in any area, library use statistics, plant maintenance indices, etc.
Sample forms used in the collection of the above data; documents describing procedures used above
Long-term or short-term projections of financial and resources needs
Interinstitutional data or financial comparisons

Any and all materials will be kept confidential and used by the research staff only. You may be assured that the contents thereof will not be published in any way, and that any documents will be returned if you wish and so indicate.

We hope that you will find it possible to formally join our endeavor and that we can subsequently arrange a convenient time for our proposed visit. Enclosed is another copy of the brochure describing this project to refresh your memory as to its objectives.

Sincerely yours,

John E. Swanson

JES:mpk

Enclosure

APPENDIX G

LIST OF MATERIALS CONTRIBUTED TO PROJECT COLLECTION BY INSTITUTIONS INCLUDED IN THE INSTITUTIONAL SAMPLE

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ALABAMA COLLEGE - Montevallo, Alabama

- Catalogue
- Organizational chart
- Budget, 1963-64
- Business Procedures Manual
- Proposed Budget and Appropriation Request, 1963-1965
- Financial Supplement to the Report of the President of Alabama College for the Fiscal Year Ending September 30, 1963
- Sample forms -
  - Mid-semester grade report
  - Semester grade report
  - Official class roll
  - Temporary class roll
  - Official appointment forms - Faculty (Academic Year) and Administrative Staff (Fiscal Year)

TUSKEGEE INSTITUTE - Tuskegee Institute, Alabama

- Catalogue
- Schedule of classes
- Faculty handbook
- Student handbook
- Organizational chart
- Chart of accounts
- President's report, 1962-63
- Audit report, May 31, 1963
- Organization and Statutes of Tuskegee Institute
- Budget, 1963-64
- Program planning data, 1963
- Summary of Operating and Maintenance Costs, June 1, 1961 - May 31, 1962
- Custodial and Maintenance Survey - August 1961

ARKANSAS COMMISSION ON COORDINATION OF HIGHER EDUCATIONAL FINANCE - Little Rock, Arkansas

No materials

UNIVERSITY OF ARKANSAS - Fayetteville, Arkansas

- Catalogues (7)
- Schedule of classes
- Faculty and staff handbook
- Student handbook
- Chart of accounts
- Organizational chart
- Budget for the fiscal year ending June 30, 1964

Financial report for the year ended June 30, 1963
President's report, 1962-63
Faculty and administrative salaries at the University of Arkansas (1948-49 through 1958-59)
Summary of average class size data by level and discipline, fall semester, 1962-63
Comparison of University of Arkansas Fees with Those of Other Higher Institutions (September 15, 1958)
Space Utilization Committee Report, May 1955

BUDGET DIVISION, DEPARTMENT OF FINANCE, STATE OF CALIFORNIA - Sacramento, California

No materials

CALIFORNIA INSTITUTE OF TECHNOLOGY - Pasadena, California

Catalogue
Student handbook
Faculty and staff handbook
Faculty and staff policies and procedures manual
Organizational chart
Budget for the fiscal year ending June 30, 1963
Financial statements and report for year ended June 30, 1963
Reports of the President and other officers for 1962-63
Chart of accounts
Procedure for Distribution of Operation and Maintenance Expense to Federal Agreements
National Defense Graduate Fellowship Program - Attributable Costs - sample forms
Overhead Computation, 1962-63
Report - Financial Highlights, June 1963
Report - Resources and Discretionary Funds, June 1963
Memo - Documentation of Salary Charges to Research Contracts

THE CALIFORNIA STATE COLLEGES - Inglewood, California

Brochure including a listing of the California State Colleges and notes on the organization, programs, and requirements of the California State Colleges
Suggested List of Standard Classifications (Major and Minor) (chart of accounts)
Instructions, formula, and budget format for preparation of 1965-66 budget request
Differences between College and University Business Administration, Volume I, Expenditure Classifications and Those of the Junior Colleges, State Colleges, and University of California

1961-62 Statistical Report of the California State Colleges
  Part A - October Report, October 1961
  Part B - Summer Session Report, August 1962
  Part D - Academic Year Summary, August 1962
  Part E - Faculty and Instructional Summary, November 1962
  Part F - Degree and Credential Summary, November 1963
1962-63 Statistical Report of the California State Colleges
  Part C - Fall Three Weeks Report, November 1963
California State College Faculty Staffing Formula - Revised, 1960
Memo - The State College Faculty Staffing Formula - May 15, 1961
C.S.C. Faculty Staffing Formula and sample pages
C.C.H.E. - Plant Operation Cost Study (February 10, 1964)
Compilation of Factual Data Pertaining to the Existing State College System (September 14, 1960)
California State Colleges Plant Operation Budgeted Expenditures for 1964-65
Comparison of University of California and California State Colleges Physical Plant - Maintenance and Operation Costs

PACIFIC OAKS COLLEGE - Pasadena, California

Catalogue
Budget breakdown, 1962-63 and 1963-64

UNIVERSITY OF CALIFORNIA - Berkeley, California

Catalogue
Faculty handbook
Sections of administrative manual
Policies Relating to Students and Student Organizations
Chart of accounts
Financial report, 1961-62
The Costs of Higher Education in California, 1960-75
A Master Plan for Higher Education in California, 1960-75
A Restudy of the Needs of California in Higher Education, 1955
Report on Need, Purpose, Scope and Organization, California Public Higher Education Cost and Statistical Analysis, June 25, 1963
Institutional Capacities and Area Needs in California Public Higher Education, 1960-75
Long Range Development Plan, June 1962
Budget request, 1964
Budget, 1964-65
1963-64 Budget for Current Operations
Budget for Current Operations, 1964-65
Budget for Current Operations, 1965-66
Highlights - University of California Budget for Current Operations, 1964-65

November Report on the Level of Support for Higher Education, 1964-65
Financial Statements, Auxiliary and Service Enterprises, 1962-63
University of California Accounting Office - Information Concerning Services to Departments
Budget Target Requests for 1965-66, Format and Instructions
Guide to the Reading of Codes in the Appropriation Ledger
Finance Bulletin - Special Coding of Unexpended Balances and Reserves
Information on Loan Fund Account Structure
Listing of student fees and deposits, 1963-64
Space utilization study, 1963
Analytic Studies Division sample documents (includes schedule of classes form and instructions, data on student credit hours, student contact, and teaching hours, course statistics, cost per student credit hour, and unit costs)
Library Workload Measures

UNIVERSITY OF REDLANDS - Redlands, California

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Financial report, June 30, 1963
President's report, January 1964
Budget summary - actual 1961-62, budgeted 1962-63, and suggested 1963-64
Condensed Comparative Statement of Income and Expenditures for the Years Ended June 30, 1962 and 1963
Report - Future Growth and Development, The University of Redlands, 1962-70
Sample forms -
    Faculty salary increase notification
    Student statement of charges form
    Student deferred payment agreement

UNIVERSITY OF SOUTHERN CALIFORNIA - Los Angeles, California

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Organizational chart
President's report, October 1958 - October 1961
Annual report (treasurer and financial vice president), June 30, 1963
Proposed budget for 1963-64

COLORADO STATE BUDGET OFFICE - Denver, Colorado

Manual of Operating Expenditures for Higher Education in
    Colorado, 1957-58 to 1963-64
Manual of Instructions for College and University Budget
    Schedule
Operational Efficiency of Colorado State Colleges and
    Universities, 1956-57 - 1960-61
Tabulations prepared by the State Budget Office concerning assumed
    tuition rates used for budget purposes and chart
Materials used by Governor in tuition increase debate
Memo - Federal Overhead, Organized Research, and the Cost
    Per Student
U.S. Average Salaries for Full Time Faculty - All Ranks Combined -
    9-10 Months Compared with State Supported Institutions
    of Higher Education in Colorado with Recommended Salaries
    for 1964-65
University of Colorado List of Schools for Computing Salary
    Averages Arranged According to the Level of State
    Expenditures and Population
Dropout Trend, State Colleges and Universities, Based on Fall
    and Spring Term Head Count, November, 1963
Comparison of Estimated College and University Enrollments with
    Actual Enrollments 1962-63 - 1963-64 with Estimated
    Enrollments for 1964-65 (October 1963)
Institutions of Higher Learning, Ten Year Trend - Fiscal Years
    1955-56 to 1964-65 (March 1964)
Sample form -
    State appropriations request

COLORADO STATE UNIVERSITY - Fort Collins, Colorado

Catalogues (2)
Schedule of classes
Staff manual
Student handbook
Purchasing manual
Budget for the fiscal year 1963-64
Statement of 1964-65 Budget Request
Semi-Annual Reports to the State Board of Agriculture,
    December 11, 1963
An Analysis of the Budgets of the Colorado State-Supported
    Institutions of Higher Education
1962-63 Summary First, Second, and Third Quarter
    Teaching Hour Report
An Analysis of Class Size, Teaching Load, and Instructional
    Salary Cost for the Regular Academic Year 1961-62
Comparative Budgets, 1961-62, 1962-63, and 1963-64 (library)
Library statistics, 1958-59 - 1962-63
Sample forms -
    Analysis of Scope of Offering, Class Size, Teaching
        Load and the Instructional Salary Cost for the
        Academic Year
    Teaching Hour Report

UNIVERSITY OF COLORADO - Boulder, Colorado

Catalogue
Schedule of classes
Map - Boulder campus
Freshman Manual for Class Schedule Planning
Organizational chart
Financial report for the year ended June 30, 1961
Financial Report, 1961-62
Budget, Fiscal Year 1963-64
1964-65 Request Budget
1963-64 Inter-Institution Budget Analysis
Capital Budget Program, 1964-65 through 1968-69
Budget Responsibilities and Procedures at the University of Colorado
An Analysis of the Budgets of the Colorado State-Supported Institutions of Higher Education, December 1963
Models of Higher Education Programs in Metro Denver (a statistical planning study of programs, operating expenses, faculty needs, physical facilities, and capital outlay costs of three alternative systems of public higher education in the Denver Metro Area, 1965-70)
Preliminary Outline, Comprehensive Statistical Model of the University, by T. R. Mason
A Statistical Analysis of Selected Characteristics of the Faculty of the University of Colorado, Boulder Division, 1962-63
Faculty Workload, University of Colorado, Fall 1961
Comparison of Departmental Assistant FTE, Staff FTE, Hourly Wages, and Supplies and Expense and Special Items Per FTE Faculty (Selected Universities and Selected Departments)
Historical Summary, University of Colorado, Boulder Campus, Class Size and Teaching Load Data (copy of form for French department)
Analysis of Faculty Salaries for 1963-64
FTE faculty and clerical staff ratios for Arts and Sciences and Engineering departments, 1956-57 and 1963-64
Space utilization study, fall semester, 1961-62
An Analysis of Class Size, Teaching Loads, and Instructional Salary Cost for the Regular Academic Year 1961-62
Analysis of class sizes and teaching loads in English and Mathematics in the College of Engineering and the College of Arts and Sciences

UNIVERSITY OF DENVER - Denver, Colorado

Catalogues (4)
Schedule of classes
Student handbook
Chart of accounts
Monthly budget report
Audit report

A Review of Business and Financial Affairs 1950-1960 and the Annual Report of the Treasurer for Fiscal Year Ended June 15, 1960
A Projection of Business and Financial Affairs 1961-1970 and the Annual Report of the Treasurer for Fiscal Year Ended June 15, 1961
Assumptions for the Future - for 10-year projection
Enrollment statistics, summer 1962 and 1962-63
An Analysis of the Characteristics of Enrollment, Class Size, Departmental Majors, Faculty, and Instructional Costs, University of Denver, 1957 through 1963
Sample forms -
    Request for Adjustment in Budget Appropriations
    Form used by controller's office to notify departments of accounts against which charges may not be made

WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION - Boulder, Colorado

Fact Book on Western Higher Education (3rd ed.), January 1963

DEPARTMENT OF FINANCE AND CONTROL, STATE OF CONNECTICUT - Hartford, Connecticut

State of Connecticut Budget Report of Governor John Dempsey, 1963-1965
Appropriations and Bond Authorizations Passed by the Connecticut General Assembly, January Session, 1963
General Comments and Instructions for Submission of Budget Requests
State appropriations request forms

UNIVERSITY OF CONNECTICUT - Storrs, Connecticut

Catalogues (3)
Schedule of classes
Laws and By-Laws, The University of Connecticut
Student handbook
Functional and organization charts
Classification of accounts manual
Copy - detail budget run to department head
Financial report for fiscal year ended June 1962
Administrative report, 1962-63
Enrollment figures for the first semester, 1963-64
Registration Summary, First Semester, 1963-64
"BIR 1" Class Size Analysis, Fall Semester 1963 - also sample form
Enrollment Estimates, First Semester, 1964-65
Class size analysis, Fall 1961 - number of hours of instruction in class size
Total College Enrollment Pressures in Connecticut, 1959-1975

The University of Connecticut's Future Role and Objectives in the Teaching Area: Preliminary Enrollment Projections to 1975
Distribution of College Fees, 1962-63
Figures on Magnitude of Undergraduate Lecture Sections
Professional Staff Loads information
Faculty Workload Standard (Per Semester) proposed by VP
Compensation Plan for the Professional Staff of the University of Connecticut
Space utilization figures
Administrative Economics in Physical Plant Operations, by Wallace A. Moyle, Director of Physical Plant
Operating and Maintenance Standards, University of Connecticut, by Wallace A. Moyle
Physical Plant Check List
An Inventory of "Classroom Building" Space and Facilities at the University of Connecticut
Sample forms -
    Staff Service Report
    Instructor's Class List

UNIVERSITY OF HARTFORD - Hartford, Connecticut

Catalogues (6)
The University of Hartford (facts regarding founding and development program at University of Hartford)
University of Hartford in Brief
At the University of Hartford
Schedule of classes
Faculty handbook, University evening college
Personnel Policies and Procedures manual
Student handbook
Student Guide
School paper
Organizational chart
Classification of records, Hillyer College
Budget handbook
Income Budget work sheet
Monthly budget report, October 31, 1963
Audit report, June 30, 1963
The University of Hartford, Investment in Connecticut Progress
Report of Special Committee Assigned to Rewrite the Faculty Policy Manual
The Vital Force in American Labor, by Douglas Fellows
Report on gifts and pledges, July 1, 1963 - November 30, 1963
Tables - Building and Development Fund information
University of Hartford Commerce and Industry Employee-Student Survey
Warm body enrollment report, Summer 1962 and 1962-63
IBM Class Count figures
Charts - Relative Position of Mean, Median, and Mode Average Class Groupings of Students, Hillyer College, University of Hartford, 1960-61
Ten Year Forecast of Enrollment, 1964-1973

Faculty Load Study - ABEE Schools, Fall 1963, prepared by
    Gordon B. Cross
Summary of Full-Time Faculty Load, Fall 1963 (including faculty
    load summary and cost analysis information forms)
Analysis of faculty load data (Cross' unit scheme)
Suggested formula for measuring relative faculty work-loads
Information on average and actual full-time faculty salaries,
    ten month basis, and AAUP scales for average and
    minimum compensation
Policy Governing Employment, Service Compensation and
    Advancement of Full-Time Members of the Teaching
    Faculty
Departmental Cost Analysis, 1960-61 (also Hillyer College,
    1959-60)
Cost Study of Operation and Maintenance for Selected Buildings
    of the University of Hartford, Fiscal Year 1962
Library information, 1961-62 and 1962-63
Sample forms -
    Teaching load study
    Space utilization and inventory
    Notice of Faculty Appointment
    Application for Approval of New Course
    Individual salary adjustment forecast
    Gift memo
    Purchase order
    Personal expense voucher
    Salary and wage record
    Report of application for full-time study
    Worksheet for income budget
    Faculty load sheet

WESLEYAN UNIVERSITY - Middletown, Connecticut

Catalogue
Schedule of classes
Campus directory and regulations
Faculty handbook
Student handbook
Information for Freshman Entering in 1963
Chart of accounts
Budget Deliberation Documents -
    Exhibit C - Income - Regular Budget
        D - Estimated 1964-65 (Revision #3)
            vs. Budgeted 1963-64 - Summary
        E - Administration
        F - General Expense
        G - Faculty Payroll Summary
        H - Departmental Expense
Financial report for the year ended June 30, 1963
Booklet - The Honor System
Class size data, first semester, 1957-58
Enrollment statistics, 1961-62 and 1962-63
Student enrollment in departments - first semester, 1963-64

Student enrollments (Full-time equivalents), 1963-64 and 1964-65
Department majors, 1962-63 and 1963-64
Student classification sample form including figures
Average Cost Per Student, 1964-65 (Exhibit M)
Wesleyan University Faculty, 1963-64 figures
Faculty Staffing Report, 1962-63 through 1964-65
Tenure Numbers and Ratios (Actual or Predicted), 1961-62 - 1964-65
Analysis of Faculty Manpower and Teaching Loads, 1940-41,
    1952-53, 1957-58, and 1962-63
Staff Analysis, 1940-41, 1952-53, 1957-58, and 1962-63
A Comprehensive Insurance and Retirement Plan for Faculty,
    Administration and Editors
Brochure - Your Retirement Annuity
Faculty/Student ratios, 1958-59 through 1964-65
Faculty/Student ratios (Actual or Predicted), 1961-62 - 1964-65
Faculty, Faculty Ratios, Students, 1963-1973
Sample forms -
    Budget request
    Budget adjustment request
    Expense summary

UNIVERSITY OF DELAWARE - Newark, Delaware

Catalogues (4)
Schedule of classes
Faculty handbook
Student handbook
Business Policies and Procedures Manual
Organizational chart
Chart of accounts
1963-64 Budget
President's report, 1962-63
Audit report, June 30, 1963
An Explanation of State Appropriations Requested by the
    University of Delaware for 1964-1965 (state
    appropriations budget request)
Budget Policies Adopted by Executive Committee of Board of
    Trustees, November 21, 1962

GEORGE WASHINGTON UNIVERSITY - Washington, D.C.

Catalogue
Schedule of classes
Student handbook
The University Hatchet, February 25, 1964 (student newspaper)
Organizational chart
Budget, 1961-62
Reports of the treasurer for the years ended August 31, 1962
    and 1963
Schedules - Reports of the treasurer for the years ended
    August 31, 1962 and 1963

Two and a Half Years Later - progress report of new administration beginning May, 1961
Chart of accounts
Faculty Newsletter - Treasurer's report
Guide to Academic Administrative Procedures for Deans and Chairmen
Regulations Governing Administrative Assistants and Research Personnel
Code and Ordinances Governing the Academic Personnel of the University
Assumptions on Which This Study (?) is being made at this institution
Descriptive materials concerning George Washington University student body
Distribution of student hour load, fall semesters, 1962-63 and 1963-64
Distribution of student hour load by class, fall semester, 1962-63 and 1963-64
Outline guide to the preparation of science department statements (sample forms)
Sample forms -
  Preliminary registration report
  Final registration report
  Summary of course offerings
  Budget request

FLORIDA ATLANTIC UNIVERSITY - Boca Raton, Florida

No materials

MIAMI-DADE JUNIOR COLLEGE - Miami, Florida

Catalogues (2)
Registration handbook and schedule of classes
Student handbook
Organizational chart
Chart of accounts
Budget, 1963-64
Annual financial report, 1960-61, 1961-62, and 1962-63
Personnel Procedures - Hourly Substitute Teaching
Report of the Ad Hoc Advisory Committee on Criteria for Academic Rank
Salary Schedule and Policies
Annual total and per student expenditure summaries for 1960-61 through 1963-64
Revenue by sources and per student (1960-61 through 1963-64)

NEW COLLEGE - Sarasota, Florida

A Profile of New College, Sarasota, Florida

UNIVERSITY OF MIAMI - Miami, Florida

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Procedures manual
Organizational chart
President's report, 1962-63
Financial report, 1962
Chart of accounts
Chart of Current Fund Accounts, August 15, 1962

BOARD OF REGENTS OF THE UNIVERSITY SYSTEM OF GEORGIA - Atlanta, Georgia

1962 Annual report
Financial Program for Higher Education in Georgia
Budget summary - actual 1962-63, budgeted 1963-64 and proposed 1964-65
Summary budget data presented to Board of Regents by treasurer
Equivalent Full-Time Enrollments, 1961-62 - 1964-65
Comparison of Faculty Salaries Paid on Nine Months' (or Three Quarters) Basis, 1962-63, 1963-64, and 1964-65
Comparison of Faculty Salary Ranges on Nine Months' (or Three Quarters) Basis, 1963-64 and 1964-65

EMORY UNIVERSITY - Atlanta, Georgia

Catalogue
Schedule of classes
Student handbook
Financial report, August 31, 1963
Budget, 1963-64
Emory University: A Self-Study, 1962
A Special Report on the Proposed Development of Emory University, 1960

GEORGIA INSTITUTE OF TECHNOLOGY - Atlanta, Georgia

Catalogue
Anniversary Guide to the Georgia Tech Campus
Schedule of classes and tentative course offering list, summer session, 1964
Statutes
Chart of accounts
1962 annual report
President's report, 1963
Financial report for year ended June 30, 1963
Current Balance Sheet, June 30, 1963
Analysis of Roll - Spring Quarter, 1964

Listing of Part-Time Students - Spring Quarter, 1964
Work Load Report, General College, Spring Quarter, 1963
Engineering College Workload, Spring Quarter, 1963
Sample forms -
    Budget request
    Hourly and percentage time sheet

MEDICAL COLLEGE OF GEORGIA - Augusta, Georgia

Catalogues (2)
Schedule of classes and curriculum outlines, 1963-64
Faculty handbook
Organizational chart
Chart of accounts
Classification of objects of expenditure
Annual report, 1962-63
Financial report, year ended June 30, 1963
Budgetary and Accounting Instructions for State Departments and Institutions
Hospital Expense Balance Sheets - sample pages
Departmental Budget - sample pages
Information on enrollment growth, physical facilities, program, and financial requirements
Sample forms -
    Commodity requisition
    Summary of Recommended Budget Requests
    Budget Request (including Detail of Personal Services and Detail of Operating Expenses and Supplies)

SOUTHERN REGIONAL EDUCATION BOARD - Atlanta, Georgia

No materials

UNIVERSITY OF IDAHO - Moscow, Idaho

Catalogue
Schedule of classes
Organizational chart
Faculty handbook
Student handbook
Handbook of Policy and Procedure
Campus map
Annual reports, 1962 and 1963
Chart of accounts
Accountant's budget report, 1 July 1962 - 30 June 1963
Summary of budget requests for the biennium 1 July 1963 - 30 June 1965
Restricted Current Fund Operating Budget, 1963-64
Operating Budget for the Year 1 July 1963 through 30 June 1964

Brochure - Your Employment Benefits in Addition to Salary at the University of Idaho

Statement of General-Education, Research Operation Expenditure Per Student Credit Hour for the Fiscal Year Ended June 30, 1963

Sample forms -
- Summary of Budget Request for the Biennium 1963-65
- Salary Data - Full-Time Academic Faculty and Administrative Officers

CHICAGO CITY JUNIOR COLLEGE - Chicago, Illinois

Catalogue

Facts and Figures, Chicago Public Schools - 1962 - September 1963

Schedule of classes - 7 branches

Student handbooks - 3 branches

1962 Annual Financial Report

C.C.J.C. 1964 Budget

Annual Budget, 1964

Report on the Chicago City Junior College to the Chicago Board of Education, May 1956

The Second Report on the Chicago City Junior College to the Chicago Board of Education, July 1958

Fall 1962 Statistical Report

Fall 1963 Statistical Report

Staff Recommendations for a Master Plan for Higher Education in Illinois (Board of Higher Education, March 1963)

Present Class Size data (February 1959)

Projection of Costs in 1960

Counselors in the High School - duties, qualifications, present policy

Staffing Report for 1960

Daily Teaching Load Showing Effect of Additional Staff

Staffing Analysis - General High Schools, 1959-1963

Memo to Deans - Teacher Staffing Policies

Memo to Deans - Teacher Load Policies

Memo to Deans - School Staffing Report

Instructions for the Preparation of the School Staffing Report - also sample form

Schematic Diagram Showing Faculty Participation in Formulation of Educational Policies

Salaries, Chicago Teachers Colleges and Chicago City Junior Colleges, Monthly (4 Weeks) Salaries for Full-Time Teachers Effective September, 1962

Fall Trimester 1963 Lecture Expenditures and sample school staffing report

Chicago's TV College: Final Report of a Three Year Experiment (August 1960)

Cost Per Pupil data, 1962-63

ILLINOIS INSTITUTE OF TECHNOLOGY - Chicago, Illinois

Catalogues (4)
Schedule of classes
Faculty and staff handbook
Student handbook
Procedure Manual
Chart of accounts
Budget, 1963-64
President's report, 1962-63
Financial report for the year ended August 31, 1963
10-Year Budget Projection, 1963-73
Paper - Toward a Realization of Aims (including projection of students, faculty, physical facilities, and budget)
List of classes and sizes (from registrar's office)
Final Registration Report, First Semester 1963-64

LOYOLA UNIVERSITY - Chicago, Illinois

Catalogues (7)
Schedule of classes
Faculty handbook
Student handbook
Manual of Institutional Policies
Chart of accounts
Organizational chart
Five Year Budget Summary, 1959-60 - 1963-64
Audit report for year ended June 30, 1963 - Parts I, II, III
Ten Year Projection of Income and Expense
Ten Year Forecast - 1963-1972 Inclusive, and summary
Proposed Expenditures for the Year July 1, 1964 to June 30, 1965
Enrollment Reports, First Semester, 1963-64
Pertinent Data to Transcripts of Records
Reports on Teaching and Administrative Loads of the Faculties of the Schools of Loyola University
Faculty Salary Study
Salary Range for the General Faculty, Nine-Month - With Twelve-Month Salaries Reduced to Nine-Month Equivalent, and university total contributions to pension
Sample forms -
    Class and Enrollment Report
    Listing of students
    Registration information cards (undergraduate and graduate)

ROOSEVELT UNIVERSITY - Chicago, Illinois

Catalogues (4)
Brochures (4)
Schedule of classes
Faculty Manual
Student handbook

Roosevelt Torch, April 6, 1964 (student newspaper)
Organizational chart
Chart of Accounts
Proposed Budget for 1963-64
Final Budget Summary for 1963-64
Recommended Budget Revision for 1963-64 Budget
Financial report for year ended August 31, 1963
Annual report of the president
Report to the President by the Acting Dean of Faculties, 1962-63
Salary Data for Full-Time Employees, 1961-62, 1962-63, and 1963-64
Tables - Projections - 1962-63 - 1970-71
  Projections of Student and Faculty
  Projections of College Assets
  Projection of Educational and General Budget
  Projection of Scholarship Budget
  Projection of Auxiliary Enterprises Operating Budget
  Projection of Plant Construction and Acquisition Budget
  Projection of Fund Raising

DE PAUW UNIVERSITY - Greencastle, Indiana

Catalogue
Schedule of classes
Faculty handbook
Organizational chart
Proposed Budget, DePauw University, July 1, 1963 - June 30, 1964
Financial Report of the Comptroller for the Year Ended June 30, 1963
Chart of accounts
Regulations Governing Scholastic Standing of Students in DePauw University (applicable for students graduating before June, 1967)
DePauw Profile

INDIANA STATE COLLEGE - Terre Haute, Indiana

Catalogue
Schedule of classes
Student handbook
Administration-Organization, Policies and Procedures
Current Operations Budget, 1963-64
Student Services Budgets - 1963-64
Auxiliary Enterprises Budgets - 1963-64
Financial report, year ended June 30, 1963
Audit report, July 1, 1959 to June 30, 1960
Enrollment data, 1960-61, 1961-62, 1962-63, and first semester, 1963-64
Memo to Department Chairmen - Estimated Enrollment, Fall, 1964

Estimated Fall Enrollments, 1964-72 (Actual Fall Enrollments, 1951-63
Freshman Enrollment Data (income of parents, number of children in family, financial contributions of parents toward college expenses, etc.)
Faculty-Student Ratios, 1960-61 - 1963-64
Actual Cost Per Student, 1960-61
Library data
Salary Information - College Faculty Only, 1954-55 - 1963-64

ROSE POLYTECHNIC INSTITUTE, Terre Haute, Indiana

Catalogues (2)
Schedule of classes
Student handbook
1963-64 Budget
Audited Financial Statements and Other Financial Information, August 31, 1963
Annual report of the president, 1962-63
The Annual Report, 1961-62
Development Report, August, 1963 and January, 1964
Inventory of Faculty Teaching Loads, 1962-63
Assumptions for the Future

SAINT MARY-OF-THE-WOODS COLLEGE, Saint Mary-of-the-Woods, Indiana

Catalogue
Basic information brochure
Schedule of classes
Faculty manual
Student handbook
Organizational chart
Chart of accounts and object code classification
President's report, 1962-63
Traditional Goals - Yesterday, Today, and Tomorrow - Saint Mary-of-the-Woods Development Program
Faculty-student ratio figures by years, 1960-61 - 1963-64

CORNELL COLLEGE - Mount Vernon, Iowa

Catalogue
Schedule of classes
Faculty manual
Student handbook
Chart of accounts
President's report, 1962-63
Financial report, June 30, 1963
1963-64 Budget
Estimated Campaign Income, Expenses, and Allocations, 1963-64 through 1966-67 and Totals

STATE COLLEGE OF IOWA - Cedar Falls, Iowa

Catalogues (2)
Schedule of classes
Faculty handbook
Revision of Faculty Manual
Student handbook
Organizational charts (3)
Budget, 1963-64
Financial report for the year ended June 30, 1963
Procedure for Collection and Analysis of Cost Data
Comments on 1960-61 Cost Data Tables - and tables as follows:
  Cost Per Credit Hour, By Courses
  Cost Per Credit Hour at Different Course Levels by Departments
  Cost Per Credit Hour at Different Course Levels, All Departments Combined
  Breakdown of Department Expense (dollar amount)
  Breakdown of Department Expense (dollars per credit hour)
  Breakdown of Department Expense (dollars per employee)
  Percent of Total of Each Allocation Statistic, by Department
Iowa State Board of Regents Committee of Nine - Per Student Costs by Level of Instruction for 1960-61
State Board of Regents Cost Study Fact Sheet, March 1962
Memo from President, State College of Iowa, to State Board of Regents Re Enrollment, Fall, 1963; Student Housing and Dining, November, 1963
A Study of the Financial Resources of Students at Public Institutions of Higher Education in Iowa (March 1959)
Summary of Proposed Plan for Development of Residence Hall and Dining Facilities, 1962-63 through 1970-71
The Standing of State College of Iowa among Other Institutions in the United States
Table - Distribution by Rank of Cash Salaries Budgeted for Instructional Staff, 1963-64 Academic Year
Graph - Distributions of Salaries Budgeted for Full Time Instructional Faculty, 1963-64 by Rank and Years of Creditable Experience, with Line Indicating Base Provided by Salary Schedule
Computation of Amount Required to Raise Faculty Salaries at the State College of Iowa to Third Place among Comparable Institutions in Midwest Area as of 1962-63
Chart - Efforts of State College of Iowa to Reach Third Place among Comparable Institutions in the Twelve-State Area Surrounding Iowa in Average Salary Paid to Full-Time Teaching Faculty, 1959-60 to 1961-62
Cooperative Study of Instructional Load, July 1962
Cooperative Research Study on Instructional Load, 1961
Memo - Comparative Study of Instructional Loads

1963-64 Salary Study (including 79 member institutions of ASCU)
Information for legislators regarding salary competition
Memo - Long-Range Capital Improvements Program (January 1963)

KANSAS STATE UNIVERSITY - Manhattan, Kansas

Catalogues (2)
Schedule of classes
Faculty handbook
Directory of Students, Faculty and Staff
Organizational chart
Revised chart of accounts for 1963-64
1963-64 Annual budget
The 1950's at Kansas State University - Report of a Decade of Progress, by President James A. McCain
Financial report for year ended June 30, 1963
Overhead Rate Calculation, 1961-62

WASHBURN UNIVERSITY - Topeka, Kansas

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Manual of Positions and Duties and Responsibilities of Employees in the "Business and Financial Area" or Directly Responsible to That Area
Handbook of Information from the Business Office to Faculty Members and Administrative Employees
Statutes, By-Laws, and Supplementary Retirement Program - Washburn University
By-Laws - Washburn College
Structure, Authority and Responsibility of General Council
Organizational Charts - University and Business and Financial Affairs
Chart of accounts
President's reports, 1959-60 and 1961-62
Financial reports, 1956-57 and 1962-63
Annual report of treasurer and business manager to president, 1961-62 and 1962-63
Audit report, June 30, 1963
Washburn College Financial Report, 1962-63
Proposed budget and tax levy for the year 1963-64
Preliminary budget for 1963-64
Condensed Financial Information, 1963
Summary Chart of Income and Expenditures
Self Study, 1961 - prepared for the North Central Association of Colleges and Secondary Schools

10-Year Projection of Educational and General Budget, 1960-61 - 1970-71
Request of Washburn University for Increased Financial Support from the State of Kansas
Communication of treasurer to president regarding questions in Dr. Tickton's letter as to steps the State of Kansas may need to take to meet educational problems
Report of Standards Committee, Central States Regional Association of N.A.P.P.A.
1951 Enrollment and Population Graph
1952 University Enrollment and Population Comparison Graph
Department Cost Analysis for 1962-63 and Comparisons
Fall Semester Credit Hour Analysis, 1947 to 1963
Basic Faculty Salaries by Rank for 1963-64
Analysis of Classroom and Laboratory Use, 1961 Fall Semester, and a Summary Comparison Fall of 1957 and 1951
Space Utilization Analysis
Report on Central Air Conditioning for Washburn University
Special Report of Treasurer, 1962, on Analysis of Housing and Apartment Operations
Graph of Library Volumes and Enrollments for College

BEREA COLLEGE - Berea, Kentucky

Catalogue
Schedule of classes
Organizational chart
Faculty manual
Chart of accounts
Index to Registrar's report tables, 1962-63
Departmental budget form

DIVISION OF THE BUDGET, KENTUCKY STATE DEPARTMENT OF FINANCE - Frankfort, Kentucky

No materials

KENTUCKY STATE COUNCIL ON PUBLIC HIGHER EDUCATION - Frankfort, Kentucky

Biennial Budget Request, 1964-66, University of Kentucky
Executive Budget, 1964-66
A Foundation Program for Public Higher Education in Kentucky
Report of the Advisory Committee on Financial Studies

MOREHEAD STATE COLLEGE - Morehead, Kentucky

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Audit report, June 30, 1963
Budget - 1963-64 and 1964-65
Sample forms -
    Mid-semester grade report
    Final grade report
    Class roll

VILLA MADONNA COLLEGE - Covington, Kentucky

Catalogue
Faculty handbook
Student handbook
Chart of accounts
Budget, 1963-64
Annual financial report, 1962-63
Student enrollment figures, fall semester 1963-64
Faculty-student ratio figures, second semester 1963-64

BOWDOIN COLLEGE - Brunswick, Maine

Catalogue and Bowdoin College brochure
Schedule of classes and examinations
Charter and by-laws
Faculty handbook
Student handbook
Chart of accounts
Budget Requests for the fiscal year 1963-64
President's report, 1962-63
Financial report for the year ended June 30, 1963
Library circulation statistics, 1957-58 - 1961-62
Bowdoin College Capital Campaign, 1962-1963 booklet entitled "Students, books and ideas . . . A New Library Building for Bowdoin College" and "A Pocket Guide of Objectives"
Tables -
    Data and Assumptions on Faculty, 1952-53, 1957-58, 1962-63, 1967-68, and 1972-73
    Details of Fund Raising, Next Ten Years Estimated Excluding Funds for Contract Research, 1963-64 - 1972-73
    Summary of Objectives According to Priorities, 1963-64 - 1972-73

BOSTON UNIVERSITY - Boston, Massachusetts

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Boston University Fact Book
Chart of accounts
Annual report, 1959
Report of the treasurer, year ended June 30, 1963
Proposed Budget, Fiscal Year 1964-65
Paper reviewing present status of Boston University and proposing future course, 1964-1970
Enrollment reports for second semester, 1963-64 and for the academic year 1963-64
Tables - Physical Expansion at Boston University during Past Five Years, 1958-59 - 1963-64, and Room Utilization by Time Block, Semester I, 1961-62
Summary of Salaries of Full-Time Instructional Personnel, Budget 1963-64 and 1962-63
Instructional Space Utilization, 1961-62
Memo - School of Nursing space needs
Monthly balance sheets and operating statements, February and March, 1964

MASSACHUSETTS INSTITUTE OF TECHNOLOGY - Cambridge, Massachusetts

Catalogue
Map of MIT campus
Schedule of classes
Staff policies and procedures manual
Rules and Regulations of the University
Guide to Undergraduate Faculty Counselors
President's report, 1963
Financial report, 1963
Registrar's report, 1963
Enrollment statistics, by year - first term, 1963-64
Booklet - School Scheduling Using Computers, by Robert E. Holz, Associate Director, Institutional Studies, MIT

NEW ENGLAND BOARD OF HIGHER EDUCATION - Winchester, Massachusetts

No materials

SMITH COLLEGE - Northampton, Massachusetts

Catalogue
Smith College brochure and visitor's guide
Faculty handbook

Student handbook
Chart of accounts
Departmental classification of accounts
President's report, December 1963
Financial report, 1962-63
Summary of budget estimates for 1964-65 compared with actual figures for 1962-63 and the current revised estimates for 1963-64
Salary Statistics for the Year 1963-1964

STATE COLLEGE AT LOWELL - Lowell, Massachusetts

No materials

TUFTS UNIVERSITY - Medford, Massachusetts

Catalogues (12)
Tufts brochures (campus map and guide, course offerings in Italy)
Schedule of classes
Faculty handbook
Student handbook
Faculty annual
Tufts Alumni Review
Chart of accounts
Financial report, 1962-63
President's report, October 31, 1963
Summary of Current Income and Expense, Actual 1962-63 and Budget 1963-64
Memo to all departments and offices - purchases and requisitions procedure
Definition of Policies Concerning Sabbatic Leave of Members of the Faculties of Tufts University
Tufts University Policy for Travel Expense
Tufts Self Study, 1960
Class Sizes in Division of Arts and Sciences
Memo - curriculum load and salary costs per academic department for first semester, 1962-63 (also for 1961-62)
Analysis of the Arts and Sciences Curriculum, First Semester, 1961-62

ALMA COLLEGE - Alma, Michigan

Catalogue
Schedule of classes
Student handbook
Chart of accounts
Organizational chart
Manual of operation
Budget, 1963-64
Proposed budget, 1964-65

Annual report, October 15, 1963
Financial report, year ended June 30, 1963
Report to the Board of Trustees, Alma College, Ten Year Development Program 1963-1972 (January 31, 1963)
Projection of Current Fund Operation - Income and Expenditures, Year Ending June 30, 1964 and 1965
Comparative Analysis of Current Fund Operations - Income and Expenditures, Years Ending January 31, 1964 and 1965
Tabulations - Certain Financial Information, Colleges Endorsed by General Assembly, The United Presbyterian Church in the U.S.A., for the Years 1961-62 and 1962-63
Summary of Cost Per FTE Student and Cost Per Credit Hour, Years Ending June 30, 1956 through June 30, 1964
Description and Evaluation of Western Civilization Course for the Transfer Student
List of faculty, by rank, 1963-64
Faculty salary data used for 10-year projection
Report of the Registrar on Teaching Loads - sample page
Sample forms -
- Income
- Comparative Income Budget
- Comparative Expense Budget
- Income Budget Summary
- Budget Summary
- Salaries (also sample of completed page)
- Supplies and Expense Equipment Department Summary (also sample of completed page)

BUDGET DIVISION, DEPARTMENT OF ADMINISTRATION, STATE OF MICHIGAN - Lansing Michigan

No materials

EASTERN MICHIGAN UNIVERSITY - Ypsilanti, Michigan

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Financial report, June 30, 1963
Classification of General Educational Accounts
Local Funds Budget
State Appropriation 1963-64 Operating Allotments
Budget Requests 1963-64 - Operating Budget, Capital Outlay Budget
Budget Requests 1964-65 - Operating Budget, Capital Outlay Budget
A Summary of Revenues and Expenditures for the Year Ended June 30, 1963
Cooperative Research Study - Expenditures, 1961-62
Study on faculty salaries, 1962-63

Cooperative Research Study - Instructional Load, 1961
    (done by Bureau of Research and Examination Services, State College of Iowa, Cedar Falls)
Space Utilization Study of Classrooms and Laboratories at
    Eastern Michigan College for the Spring Semester of 1959
Enrollment and Credit Hour Data, Spring Semester 1964
Materials describing organizational pattern of the Division of
    Student Affairs
Faculty load study - January 6, 1964
Annual Questionnaire for State Universities and Colleges for
    1964-65 Budget, Submitted to Budget Division, Department of Administration, State of Michigan, by Eastern Michigan University
Open letter to EMU Alumni from President Elliott - Initial
    Report of the Governor's Committee on Higher Education
Faculty Service Report - sample form and instructions

MICHIGAN COUNCIL OF STATE COLLEGE PRESIDENTS - Lansing, Michigan

No materials

MICHIGAN TECHNOLOGICAL UNIVERSITY - Houghton, Michigan

Catalogue
Student handbook
Accounting manual
Financial report for year ended June 30, 1963
Faculty salary analysis, 1963-64 - Houghton and Sault Ste. Marie
Summary Analysis of Academic Space Utilization, Fall Quarter 1962
Capital Outlay Budgetary Request - Summary and Detail of
    Five-Year Program, 1964-65 - 1968-69
Adjustment of Collegiate Allotments, Third Quarter - Fiscal
    Year 1963-64
Annual Questionnaire for State Universities and Colleges for
    1964-65 Budget, Submitted to Budget Division, Department of Administration, State of Michigan, by Michigan College of Mining and Technology, November, 1963

WAYNE STATE UNIVERSITY - Detroit, Michigan

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Financial reports, 1962 and 1963
Excerpt from Public Acts 1960 giving statistics included in
    budget requests
Selected Data on Instructional Costs and Faculty Service, Wayne
    State University, Summer 1961, Fall 1961, Spring 1962

Faculty Service Report and Instructions - sample copy
Report on Class Meeting Times
Paper - An Approach to Institutional Cost Analysis
Michigan State Department of Administration budget materials
Report to the President made by Long Range Salary Committee (March 1960)

AUGSBURG COLLEGE AND THEOLOGICAL SEMINARY - Minneapolis, Minnesota

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Staff handbook
Organizational charts - administrative and academic
Articles of Incorporation and By-Laws of Augsburg College
Accounting manual
Chart of accounts
Budget, 1963-64
President's report, 1962-63
Audit report for year ended June 30, 1963
A Ten Year Plan (5 and 10 year projection of financial requirements and resources), 1964-65 - 1973-74
Enrollment figures, fall 1963-64
Church affiliation of students, second semester, 1963-64
Student classification according to location, first semester, 1963-64
Summary of Course Enrollment by Class and Sex, First Semester, 1963-64
Report on distribution of grades, first semester, 1963-64 - sample page
Probation Summary, First Semester, 1963-64
Study of Faculty Load and Instructional Costs for 1962-63
Tables from Dean's report to the President including faculty salary data, teaching loads, student class hour loads, student-faculty ratios, etc.
Report on class hours of instructors, first semester, 1963-64 - sample page
Space utilization summary, first semester, 1962-63
Report of classroom utilization, first semester, 1963-64 - sample page
Sample forms -
    Request for Approval of Non-Income-Producing Capital Project
    Request for Approval of Income-Producing Capital Project

BOARD OF COLLEGE EDUCATION, THE AMERICAN LUTHERAN CHURCH - Minneapolis, Minnesota

Brochure - Consider a Lutheran College
Descriptive listing of the schools, colleges, and seminaries of the American Lutheran Church
Facts and Figures about Universities, Colleges and Schools of the American Lutheran Church
Accounting Manual for Institutions of Higher Education of the American Lutheran Church

CARLETON COLLEGE - Northfield, Minnesota

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Staff handbook
Articles of Incorporation, By-Laws and Regulations
Organizational chart
Chart of accounts
Budget, 1963-64
Financial report, 1963
President's and treasurer's reports, 1962-63
Statistical survey covering period 1953-54 to 1968-69
Faculty distribution by academic rank, 1959-60 - 1963-64 and faculty load figures, 1959-60 - 1962-63
Space utilization studies, dated March 1960, January 1962, and January 1963

UNIVERSITY OF MINNESOTA - Minneapolis, Minnesota

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
President's report, 1961-62
Biennial report, 1960-62
Budget, 1963-64
Financial report, June 30, 1963
The Needs of the University of Minnesota (Legislative Request, 1963-1965)
Summary of Allotments - Overhead Funds - 1964-65
Summary of Research, 1962-1963
Annual report of the University of Minnesota libraries, 1961-62
Brochure - Civil Service Rules
Group Insurance information
Copy - Memo concerning income tax exemption for research stipends
Excerpt from University of Minnesota Laws and Regulations concerning uniform credit hour value
Enrollment statistics, fall quarters, 1962-63 and 1963-64
Annual Salary Analysis, 1963-64

Study of State Appropriations Per Student in Selected Colleges at the University of Minnesota for 1960-61 and 1961-62
Study of Building Space Use in 1952 and 1961 (January 1963)
Report - Building Space Assignment and Use (May 1963)
Plant Services Cost Analysis Report - December 1963

EAST CENTRAL JUNIOR COLLEGE - Decatur, Mississippi

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Business manager's financial report, June 30, 1963
Financial statement and budget condition as of September 30, 1963
Comparative Statement of Income and Budget Estimate
Study on "A Financial Program for the Public Junior Colleges of Mississippi"
Enrollment and student credit hour figures, fall semester, 1962
Sample forms -
    Faculty appointment form
    State appropriations budget request form

NORTHEAST MISSOURI STATE TEACHERS COLLEGE - Kirksville, Missouri

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Organizational chart
96th Anniversary Bulletin
Summary of the Major Policies Affecting the Admission and Retension of Students
Internal Budget, Fiscal Year 1963-64
Biennial Report - July 1, 1959 to June 30, 1961
Annual report, 1963
Salary schedule, July 1, 1963
Class size data as of September 13, 1963
Monthly encumbrance record - sample copies

STEPHENS COLLEGE - Columbia, Missouri

Catalogue
Schedule of classes
Faculty handbook
Student handbook
President's report, 1962
Audit report, June 30, 1963
Budget Summary, 1963-64
Budget, including chart of accounts
Conditions of Appointment and Benefits at Stephens College

Teaching load data
General information folder including information on Stephens College House Plan and Audio-Visual Aids materials relative to project

TARKIO COLLEGE - Tarkio, Missouri

Report - College of 1,000
Tarkio College Long Range Plan (1960-61 through 1969-70)

UNIVERSITY OF MISSOURI - Columbia, Missouri

Catalogues (5)
Schedule of classes
Student handbook
Business Policy and Procedure Manual
Travel Regulations
Organizational chart
Budget, 1963-64
President's report, 1962
Financial report for year ended June 30, 1963
Ten Year Budget Plan, July 1, 1963 - June 30, 1973
Copy - House Bill No. 218 establishing the Missouri Commission on Higher Education
Booklet - Retirement, Disability and Death Benefit Plan (also pamphlets on group medical and life insurance plans and salary reduction plan)
Enrollment figures (Missouri colleges), fall 1963
Cost of instruction figures, 1961-62
Number of FTE teachers for General University exclusive of Medicine, Veterinary Medicine, and Nursing using various formulas and studies - April 6, 1964
Faculty workload standard (per semester)
Library data
Cost analysis sheet - sample copy

MONTANA STATE SYSTEM OF HIGHER EDUCATION - Helena, Montana

Recap. of Budget Proposals for the 1963-65 Biennium
Projected Enrollment Statistics to 1975
Master Plan Study Status Report, October 8, 1962, and Appendixes, and February 1, 1963
Proposed salary benchmarks, 1965-67 biennium
Montana Kaimin, May 5, 1964 (student newspaper)

MONTANA STATE UNIVERSITY - Missoula, Montana

Catalogue
Schedule of classes

Student handbook
Campus map
Financial report, 1961-62
Budget summary - 1961-62 - 1963-64
Classification of accounts and coding system for IBM machine accounting

WAYNE STATE COLLEGE - Wayne, Nebraska

Catalogues (4)
Brochure on Wayne State College
Campus map
Schedule of classes
By-Laws, Rules and Policies of the Board of Education of State Normal Schools
Current Operating Budget, 1963-64
Financial report, 1961-62
Staff Salary Summary, 1962-63 and 1963-64
Enrollment Trends and Projections through 1970 (April 1963)
Physical Plant Needs, Biennium 1963-65
Space Utilization Study - Comparison of Physical Space Measures for September 1959 and September 1962 and summaries

UNIVERSITY OF NEVADA - Reno, Nevada

Catalogue
Schedule of classes
Student handbook
Organizational chart
Administrative Manual of Policies and Procedures
Financial report, 1962-63
Biennial Report, 1960-61 - 1961-62
President's proposed 1964-65 work program
Report on space utilization, 1962
Report on average class sizes for fall semester, 1963
Sample page from average class size report
University of Nevada Sagebrush, April 3, 1964 (student newspaper)

KEENE STATE COLLEGE - Keene, New Hampshire

No materials

NEWARK COLLEGE OF ENGINEERING - Newark, New Jersey

Catalogues (3)
Schedule of classes
Staff handbook
Student handbook
Chart of accounts
Organizational chart

1964-65 Asking Budget Compared to 1963-64 Working Budget
Research budget, 1963-65
State appropriations budget request, fiscal year 1965
Condensed Comparative Balance Sheet, November 30, 1963 - October 31, 1963
Statement of Income and Expense Compared with Budget for Fiscal Year 1963-64
Audit report, 1962-63
Annual report of Newark College of Engineering Research Foundation, 1962
Booklet - The Needs of New Jersey in Higher Education, 1962-1970
Income Comparisons 1953-54 and 1963-64
Changes in the Past Five Years (assets), February 28, 1959 to February 29, 1964
Comparison of Balance Sheets, June 30, 1954 and February 28, 1964
Student-Teacher Ratios for 1964-65
Faculty Salary Rates Effective September 1, 1964
Newark College of Engineering Research Foundation Balance Sheet, February 29, 1964
Newark College of Engineering Research Foundation Contributors and Contributions, 1960-66
Information on percentage of revenue by source
Sample form -
    Budget report

PRINCETON UNIVERSITY - Princeton, New Jersey

Catalogue
Chart of accounts
Financial report for year ended June 30, 1963
President's report, 1962-63
Annual report of the librarian for the year ending June 30, 1963
Computation of Indirect Cost Rates and Statement of All Costs for the Year Ended June 30, 1963
Publication - The Federal Government and Princeton University (January 1962)
Office of Research Administration Project Leader's Guide
Sample forms -
    Hours of Instruction
    Organization of Undergraduate Courses (teaching load report)

UPSALA COLLEGE - East Orange, New Jersey

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Personnel Manuals (3)
Faculty Personnel Policies

Manual for Department Chairmen
Constitution of Upsala College
Organizational chart
President's report, 1962-63
Audit report
Annual fund report, November 1963
Operating Income Budget - Initial, Fiscal Year 1963-64
Minutes - Finance Committee, Board of Trustees, Upsala College, February 10, 1964
Salary Scale - Secretarial-Clerical
Administrative Salary Guide
Statement of Current Operating Income and Expenses for the Six Month Period Ended December 31, 1963
Statement of Dormitory Operating Income and Expenses for the Six Month Period Ended December 31, 1963
Inter-institutional tuition charge comparison
Payroll analysis

NEW MEXICO BOARD OF EDUCATIONAL FINANCE - Santa Fe, New Mexico

Legislative Budget Estimate of the State Educational Institutions
Analysis of Legislative Budgets, 1964-65
Class Size, Teaching Loads and Instructional Salary Costs Data for Regular Academic Year 1960-61, New Mexico State Educational Institutions of Higher Education, February 1962

UNIVERSITY OF NEW MEXICO - Albuquerque, New Mexico

Catalogue
University of New Mexico information pamphlet
Faculty constitution
Student handbook
Schedule of classes
Memo - Employment Policy (Faculty)
Appointment and Promotional Policy
The University of New Mexico Policy of Academic Freedom and Tenure
Policy Regarding Sabbatical Leave and Other Leaves of Absence
Information concerning health insurance, retirement, and social security
Memo - University Contract Research Policy (1958 and 1960)
Chart of accounts
Annual Report of the Office of Admissions and Records, 1962-63
President's report, 1961-62
Financial report for the years ended June 30, 1962 and 1963
Audit report, 1962-63
General fund trial balance figures - January 31, 1964
Explanation of Bureau of Educational Finance recommendations for 1963-65 Biennium

ALFRED UNIVERSITY - Alfred, New York

Catalogues (2)
Schedule of classes
Student handbook
Organizational chart
Financial report, 1962-63
Audit report for year ended June 30, 1963
Principles of Appointment, Tenure, and Promotion for the Faculties of Alfred University
Information on Faculty Leave Scholarship Program
Faculty Teaching Load data -
    College of Ceramics, First Semester, 1962-63
    College of Liberal Arts, 1961-62
Treasurer's report for the year ended June 30, 1963

COLUMBIA UNIVERSITY - New York, New York

Catalogues (24)
Schedule of classes
Faculty handbook
Student handbook
Budget and Account Revision (including chart of accounts)
Budget
Financial report, June 30, 1963
Explanatory comments on sections of the budget
Financial report, 1962-63
Registrar's report for year ending June 30, 1962 and summer session 1962
A Report from the President (discussion of finances and a program for the next six years), April, 1961
Analyses of 1961-62 Revenues and Expenditures by School
Condensed Summary of Current Income and Expenditures, 1961-62 - 1963-64
Library cost analysis (January 1964)
Sample forms -
    Faculty biographical data
    Departmental faculty load data

CORNELL UNIVERSITY - Ithaca, New York

Catalogues (2)
Employee handbook
Student handbook
Manual of accounting procedures
Organizational chart
Chart of accounts
President's report, 1962-63
Financial report for the year ended June 30, 1963
Proposed budget summary, 1963-64
Registration - fall term, 1963
Report of the Director of the University Libraries, 1962-63

ORANGE COUNTY COMMUNITY COLLEGE - Middletown, New York

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Annual Operating Budget Request for the Year Starting September 1, 1963
Budget analysis - September 1, 1963 - August 31, 1964
Budget Disbursements - Operations, September 1, 1963 - November 30, 1963
Budget for the Fiscal Year Beginning January 1, 1964
Ten Year Financial Plan, June 1963
Faculty load figures, fall semester, 1963
Faculty teaching load report - sample form
Graph showing distribution of classes by size - fall semester, 1962

UNION COLLEGE - Schenectady, New York

Catalogues (3)
Faculty manual
President's report, 1962-63
Audit report, June 30, 1963
Budget, 1963-64
Summary of expense budgets, 1963-64
Percentage of Educational and General Budget Earmarked for Various Purposes
Annual Report of Gifts to Union College, 1962-63
Average Faculty Salary Raises (42 Faculty), Tuition, and Unrestricted Alumni Giving, 1955-63
Proposed Basic Salaries, Union College Staff, 1964-65
Basic Salaries and Ages, Union College Faculty, 1963-64
Faculty Salary Study (7 institutions) - chart
Faculty Salary Study (9 institutions) - chart
1963-64 Base Salaries, Union College
Base Salary Budgets, Academic Faculty, 1962-63 and 1963-64
Tables -
    Faculty Members: Numbers, Salaries, and Fringe Benefits - Totals and Averages - By Rank
    Minimum Compensation of Full-Time Faculty Members, By Rank
AAUP Salary Data, 1962-63
Memo - Actual Financial Costs of Operating the 1963-64 Sabbatical Leave Program
Student Enrollment data, 1957-1963
Figures on Number of Academic Majors Offered by 21 Selected Liberal Arts Colleges
Figures on Number of Lecture and Recitation Classes by Enrollment in the Respective Departments - Fall Semester, 1961-62

Classroom and Laboratory Space Utilization Study, Spring Semester 1963
Basic Assumptions for a Long-Range Planning and Development Program
Summary and Commentary, Task Force Recommendations

UNITED STATES MILITARY ACADEMY - West Point, New York

Catalogue
Brochure - Class of 1967
Schedule of classes
Organizational chart
Regulations for the United States Corps of Cadets
Methodology and Teaching Aids
Mission and Included Objectives
Regulations for the United States Military Academy
Rules of the Academic Board
West Point Guidance Information
Administration USMA Management Structure
Organization and Functions Manual
Management Guide
Engineer Division Organization Chart
The Academic Faculty
Academic Programs
United States Military Academy Survey 1962
USMA Post Management Report, Fiscal Year 1963 (financial report)
Annual report of the superintendent
Library Handbook
Library Circulation Statistics and Book and Periodical Expenditures (also catalog and circulation record form)
Sample forms -
    Control sheet
    Maintenance service order
    Job Order Request
    Job Plan Schedule

APPALACHIAN STATE TEACHERS COLLEGE - Boone, North Carolina

Catalogue
Schedule of classes
Faculty handbook
State appropriations allotments for biennium 1963-65
Student handbook
Statement concerning accounting system
Reports to the Board of Trustees - September 27, 1963
Monthly Report on the Budget (November, 1963) - sample copy
A Self Study Report Submitted to the Southern Association of Colleges and Schools - March 1962
Report on long range campus planning for Appalachian State Teachers College through 1970

Class enrollment data, 1963-64
Departmental registrations and instructional costs, fall and spring semesters, 1963
Statistical Summary of Recent Extension Activities - August 1963

DUKE UNIVERSITY - Durham, North Carolina

Catalogues (2)
Schedule of classes
Student handbook
Woman's College Handbook
Organizational chart
Chart of accounts
Report of the President and Reports of Other Officers, 1957-58
President's report, 1959-60
Financial report, 1962-63
Planning and Development at Duke University (first progress report), June 1959
Long-Range Planning at Duke University (second progress report), May 1960
Duke University in the Decade Ahead, June 1961
Study on Comparative Costs at Twelve Selected Institutions, Academic Year 1963-64
Tuition and Fees at Selected Eastern and Southern Colleges and Universities, 1961-62 and 1963-64
Tabulation comparing tuition increases from 1953-54 to 1963-64 (mean and median) for 24 institutions
Memo - AAUP Ratings and Faculty Salaries, Duke University
Academic Salaries and Compensation at Duke University, 1962-63 (Committee on Academic Salaries and Living Costs)
Report on the Work Load of Instructional Staff in Arts and Sciences
Report on dormitory room charges in colleges and universities in the Southeast (August 1962)
Library newsletters, March and November, 1962
Duke University Library Statistics Report

PFEIFFER COLLEGE - Misenheimer, North Carolina

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Chart of accounts
Report to the Board of Trustees, Pfeiffer College (including President's report), November 11, 1963
Library data for year ended May 31, 1963
Maintenance Department Work Sheet - sample form

UNIVERSITY OF NORTH DAKOTA - Grand Forks, North Dakota

Catalogue
Chart of accounts (also copy of former major division classification)
President's report, 1960-62
Teaching Load Report, First Semester, 1963-64
Data on student credit hours per FTE faculty, 1958-59 and 1963-64 and percentage increase or decrease 1963-64 over 1958-59

OBERLIN COLLEGE - Oberlin, Ohio

Catalogue
Schedule of classes
Student handbook
President's report, 1962-63
Financial report for year ended June 30, 1963
Annual report of the registrar, 1962-63
Faculty salary scale, 1963-64
1963-64 and 1964-65 Budget Enrollment Projections
1963-64 Tuition Transfer Report
Budget request and control forms
Request for Change in Appropriation Budget - sample form

OHIO UNIVERSITY - Athens, Ohio

Catalogues (4)
Information booklet on Ohio University
Exhibits from Report to the Ohio Board of Regents, 1964
Booklet - Blending the Best in Private and Public Education at the Ohio University
Brochure - Profile of Ohio University

UNIVERSITY OF CINCINNATI - Cincinnati, Ohio

Catalogue
Booklet - Information for Prospective Students
Faculty handbook
Student handbook
By-Laws and Regulations of the Board of Directors of the University of Cincinnati
Organizational chart
Chart of accounts
Financial report for the year ended August 31, 1962
President's reports, 1961-62 and 1962-63
Financial reports, 1962 and 1963
Table - Faculty Members: Numbers, Salaries and Fringe Benefits - Totals and Averages (academic year 1963-64)

Tables including projections of students and faculty, assets, educational and general budget, scholarship budget, auxiliary enterprises operating budget, plant construction and acquisition budget, fund raising, through 1970-71
Student-teacher ratio data
Report on current and projected classroom utilization and efficiency use, dated January 26, 1961
Classroom utilization and efficiency usage comparison (April 18, 1963)
University of Cincinnati Classroom Utilization and Efficiency Use - First Semester, 1960-61
Supplement to the Survey Entitled University of Cincinnati Utilization and Efficiency Use - First Semester, 1960-61 (April 20, 1962)
Physical Plant Unit Costs
Library statistics - September 1962 - August 1963

UNIVERSITY OF DAYTON - Dayton, Ohio

Catalogues (2)
Schedule of classes
Faculty handbook
Student handbook
Purchasing Policy and Procedures
Organizational chart
Chart of accounts and classification of accounts
Proposed budget for the year ending June 30, 1964
President's report, 1962-63
Audit report, June 30, 1963
The University of Dayton Self-Survey, Final Report, Revised Summary Edition, September 1959
Enrollment statistics - full and part-time
Materials currently used in budget deliberations (including information on salaries paid to professors in Ohio, 1963-64; cost per student per course, expenditures by department, 1956-57 - 1963-64; statement of current expenditures, year ended June 30, 1963)
Statement concerning overhead distributions and allocations
Teaching load statement
Faculty salary figures
Cost study report, by department, first semester, 1958-59
Space Utilization Analysis, September, 1958
Sample form - cost of instruction

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION - Oklahoma City, Oklahoma

Information booklet on the Oklahoma State System of Higher Education
Copy - Higher Education in Oklahoma, July 26, 1965

Self Study of Higher Education in Oklahoma -
  Report 1 - Organization and Plan
  Report 2 - Selecting, Retaining and Utilizing Higher Education Facilities in Oklahoma
  Report 3 - Oklahoma Higher Education Enrollments and Projections
  Report 4 - Financing Current Operating Costs of Higher Education in Oklahoma
  Report 5 - Physical Facilities for Higher Education in Oklahoma
  Report 6 - Medical Education in Oklahoma
Fiscal Budgeting and Accounting in the Oklahoma State System of Higher Education (April 1964)
Operating Budget Needs of the Oklahoma State System of Higher Education for the 1965-67 Biennium
Analysis of Current Operating Income and Expenditures for Thirty-Three Oklahoma Colleges and Universities for the Fiscal Years 1960-61 and 1961-62
Current Operating Income and Expenditures, Oklahoma State Colleges and Universities, Fiscal Year 1962-63 and Fiscal Year 1963-64
In and Out of College - Report 1: The First Year (a longitudinal study of the 1962 freshman class in Oklahoma colleges)
Admission and Retention Policies for the Oklahoma State System of Higher Education, January 1963
Analysis of Faculty Teaching Loads and Student-Credit-Hour Costs in Twenty-Four Oklahoma Colleges and Universities for the 1961-62 Academic Year
Faculty Teaching Loads and Student-Credit-Hour Costs, Oklahoma State System of Higher Education, 1962-63 and 1963-64 Academic Years
Faculty Salaries in the Oklahoma State System of Higher Education
College and University Salaries in Ten Mid-Western States, July 1964
Staff Report Submitted to the State Regents on the Feasibility of Changing the Present Functions and Educational Standards at Oklahoma College for Women, as Directed by Section 1, Senate Joint Resolution No. 16, Thirtieth Oklahoma Legislature - July 7, 1965

UNIVERSITY OF OKLAHOMA - Norman, Oklahoma

Catalogue
Financial report for the year ended June 30, 1963
Budget summary, 1962-63 and 1963-64
Class Scheduling Policies, January 20, 1964
Pamphlet - The Bachelor of Liberal Studies
General Information Manual, IBM Data Processing Machines at the University of Oklahoma

LEWIS AND CLARK COLLEGE - Portland, Oregon

Catalogues (2)
Schedule of classes
Student handbook
Organizational charts
Principles of Employment and Tenure, Lewis and Clark College
Copy - Proposed Faculty Constitution
Budget for 6 months ended November 30, 1963
Financial report
President's report, June 5, 1963
Trustees' manual (including organizational charts and budget information)
The Journal of Lewis and Clark College - 3 copies
Lewis and Clark master plan for development - 1967
Booklet - Pacific Northwest Independent Colleges: Select Private Colleges in Oregon and Washington
Educational and General Budget Projections, 1960-61 through 1967-68
Budget Analysis, 1964-65
Teaching load data, per week, as of October 1, 1957
Teaching Load - Student Credit Hours Per Full Time Faculty Member, 1959-60
Tabulation showing instructor's teaching loads and other responsibilities
Excerpt from "New Dimensions in Higher Education" (No. 12; U.S. Department of Health, Education, and Welfare, Winslow R. Hatch, Director) entitled "What Standards Do We Raise?" (description of 21 standards of quality derived from materials on file in the Clearinghouse of Studies on Higher Education)
Listing of Financial Campaigns (fund-raising projections)
Sample forms -
    Request for Budget Revision
    Teaching Load Analysis
    Departmental class enrollment (approximate)
    Teaching Load Summary
    Budget request

OREGON STATE SYSTEM OF HIGHER EDUCATION - Eugene, Oregon

Organizational chart
1961-1962 Biennial Report
Comptroller's report for year ended June 30, 1963
Summary Financial Statement
Budget Summaries and Personnel Adjustments for the Fiscal Year Ending June 30, 1965
Curricular Adjustments for 1964-65
Statement of Guidelines for State System of Higher Education and each of the state supported institutions in the state
Legislative Acts pertaining to the Oregon State System of Higher Education

Curricular Allocations and Institutional Guidelines (March 19, 1964)
A Preliminary Report to the Board - Graduate Study and Research in Portland (April 21, 1964)
Summaries and Summary Comparative Analyses of Space Utilization in Classrooms and Laboratories during the Fall Term 1963 (March 1964)
Registrar's Report to the President of the University, 1962 (University of Oregon, Eugene, Oregon)
Student-Teacher Ratios and Additional Teaching Staff Positions Required to Care for Estimated Increases in Student Enrollment, Biennial Budget, 1963-1965
Class Size Study, Fall Term 1962-63
Report of Ad Hoc Committee on Board Procedures, January 27-28, 1964
Tentative Projections of Post-High School Enrollments in Oregon for the Oregon State System of Higher Education, the Oregon Public Community Colleges, and the Independent Universities and Colleges of Oregon - Average Term Enrollments for Acadimic Year 1956-57 through 1974-75 on the Full-Time-Equivalent Basis (April 1964)
Tuition, Fees, State Scholarships, Board and Room Charges, and Married Family Housing Charges, 1964-65 (January 28, 1964)
Report on Interinstitutional Fee and Dormitory Committees, Board Minutes, January 27-28, 1964
Paper - Basic Premises for a Fee Structure, by Interinstitutional Fee Structure Committee
Oregon State Board of Higher Education Investments: Endowment, Current Donation and Property and Plant, June 30, 1963

PORTLAND STATE COLLEGE - Portland, Oregon

Catalogues (3)
Schedule of classes
Faculty handbook
Organizational chart
Chart of accounts
Budget for fiscal year ending June 30, 1963
Financial report for fiscal year 1962-63
Biennial Report of Portland State College, 1961-62
Salary Budget Change: Policies, Procedures and Control
Student-Credit Hour Cost Data by Schools and Departments, Fall Term 1963-64
Student-teacher load data
Unit cost data
1963-64 Fall Term Enrollment Report
Oregon State System of Higher Education Space Utilization Study of Instructional Areas--Classrooms, Instructional Laboratories and Shops, Fall Term, 1963
Space utilization data
Overhead distribution data
Library use statistics
Faculty service report - instructions and sample form

Sample forms -
  - Enrollment report
  - Proposal for new course
  - Program analysis survey
  - Departmental Proposal for the Development of a Graduate Program over a 10-Year Period
  - Faculty Personnel Information and Staff Member's Report of Service to the Institution
  - Summary of Instructional Service
  - Departmental Work Form for Teaching Loads, Student Credit Hours, and Salary Allocations by Level
  - Divisional Summary Sheet for Faculty Load and Student-Credit-Hour Costs Study

UNIVERSITY OF PORTLAND - Portland, Oregon

Catalogues (2)
Schedule of classes
Student handbook
University of Portland Statutes
Chart of accounts
Audit report, May 31, 1963
Enrollment statistics, first semester, 1963-64
Sample forms -
  - Proposed Departmental Summary Budget
  - Budget Work Sheet
  - Current Semester Data (student)

CHATHAM COLLEGE - Pittsburgh, Pennsylvania

Catalogue
Schedule of classes
Student handbook
Organizational chart
Chart of accounts
Budget
Capital budget summary - October 31, 1963
Audit report, June 30, 1963
President's report, 1952-1962
Detail Expense Statement
Monthly library report to the president (December 31, 1963)
Enrollment figures, fall semester, 1963-64
Withdrawal Rates, Four-Year Retention, Number of Day Students and Some Projected Enrollments, September 24, 1963
Comparative enrollment figures, 1953-1963
1963-64 Teaching Loads, Student Registrations, Tutorials by Departments
Faculty overloads, 1962-63
Sample pages from report, by department, of teaching load, 5-year period (includes load analysis, annual basis, five-year span; load analysis by teachers; current

understaffing; staff needs in non-freshman courses; course planning statistics for 1964-65)
Summary sheets by area for all above data showing: projected FTE teaching needs for different numbers of students; staff apportionment by areas, 1959-1963; FTE by areas; FTE needs with various proposed numbers of students
Space utilization study - October 1962
Memo - The Cost of the Tutorial
Faculty load data sheet - sample

GANNON COLLEGE - Erie, Pennsylvania

Catalogue
Schedule of classes
Statutes
Chart of accounts
Summary of Operations for Years Ended June 30, 1959-1963
Statement of Income and Expenses, Operating Fund, for Years Ended June 30, 1959-1963
Budget report, November 1963
Audit report
Balance Sheet, November 1963
Estimate of Income and Expenditures for the Fiscal Year Ending June 30, 1964
Summary enrollment statistics, 1960-1962
Cost Per Equivalent Full Time Student for Years Ended June 30, 1959-1963
Sample forms -
    Application for admission
    Budget request
    Form used for annual report of the director of the department (prepared by President)

SHIPPENSBURG STATE COLLEGE - Shippensburg, Pennsylvania

Catalogue
Schedule of classes
Faculty handbook
Student handbook
College newspaper
Statutes and Stature of Pennsylvania State Colleges
Information brochures on Shippensburg State College
Pennsylvania salary scales
Graduate Class Enrollment for Fall Term 1963-64
Food cost study, 1958-59 - 1961-62
Sample forms -
    Budget allotment schedule
    Allocation or allotment amendment
    Capital budget -
        Preliminary project estimate
        Statement of departmental program

Departmental summary of estimates
Project description and justification
Monthly financial report

UNIVERSITY OF PITTSBURGH - Pittsburgh, Pennsylvania

Catalogues (6)
Information booklet on the University of Pittsburgh
Schedule of classes
Faculty handbook
Organizational charts
Chart of accounts
Financial report, fiscal year ended July 1, 1963
Statement of Investments, July 31, 1963
Profit and Loss Statements for Auxiliary Enterprises and Hospital Affiliated Organizations (November 1963)
Proposed Budget for the Year August 1, 1963 to July 31, 1964
Memo - Policies applicable to administering the University's 1963-64 Budget
1964-65 Budget request
Revision of a Long Term Financing Program for the University of Pittsburgh (January 21, 1963)
Advisory Report for Negotiated Final Overhead Rates for the Fiscal Year Ended 31 July 1961 for the University of Pittsburgh (U.S. Navy Audit Office, Pittsburgh)
Cost of Education Study, 1959-60
"The Role of the Academic Disciplines in a Modern University," by Edward H. Litchfield (copy of talk delivered December 16, 1958 announcing gift from the A.W. Mellon Educational and Charitable Trust)
Enrollment figures, by school and divisions, fall term 1963-64
Enrollment and Credit Analyses, Spring Trimesters
Course calendar and reading assignments for Higher Education 270, Administration of Higher Education - Financial, Winter, 1964
Average Credits Taught by Full-Time Members of Selected Faculties, Fall Trimesters - 1959, 1961, and 1962
Faculty salary scale, 1963-64
Memo - Proposed study of staff needs
Faculty Trimester Survey (October 1963)
Salary Proposal for Full Time Faculty Members, Medical School
Unit Cost Calculations for Maintaining and Operating the University's Physical Plant (1960-61 and 1961-62)
Physical Plant Operating Procedure No. 21--Job Order Accounting System (sample forms also)
Library statistics, 1961-62 and 1962-63
Summary of discussions of ad hoc committee on "The Potential Role of Television at the University of Pittsburgh" (October 1963)

Sample forms -
    Research budget request
    Requisition
    Sponsored Projects certificate
    Budget performance report

UNIVERSITY OF RHODE ISLAND - Kingston, Rhode Island

Catalogue
Schedule of classes
Student handbook
Chart of accounts
Organizational chart
Operating budget, 1963-64
Budget memorandum for 1964-65
Financial report for the year ended June 30, 1963
Annual report, 1961-62
Summary of Courses Taught and Enrollments in Major Field of Study by College, Fall Semesters 1959-60 through 1962-63
Study on Space Utilization for the Fall Semester, 1961
Memo concerning faculty service report - also sample copy
Sample form -
    Budget allotment announcement

UNIVERSITY OF SOUTH CAROLINA - Columbia, South Carolina

Catalogue
Schedule of classes
Business services manual
Organizational chart
Annual report of the president and other officers, 1961-62
Financial report, June 30, 1963
Chart of accounts
Budget, 1963-64
Monthly Consolidated Financial Analysis - Statement of Maintenance Appropriation, Revenue, Expenditures and Balances as of November 30, 1963
Statement of Departmental Accounts, Expenditures, Encumbrances, and Balances as of November 30, 1963
Financial Proposal for Tentative Future Land Acquisition and Building Program (November 1960)
Data concerning operating costs and financial requirements

GENERAL BEADLE STATE TEACHERS COLLEGE - Madison, South Dakota

No materials

STATE UNIVERSITY OF SOUTH DAKOTA - Vermillion, South Dakota

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Organizational chart
Chart of accounts
Budget, 1963-64
Financial report for year ended June 30, 1963
Summary of Estimated Annual Operating Budgets, 1963-64
    through 1972-73

GEORGE PEABODY COLLEGE FOR TEACHERS - Nashville, Tennessee

Catalogue
Schedule of classes
Student handbook
Manual on Accounting, Reporting, and Budget Program
Organizational chart
President's report, 1963-64
Budget, 1964
Copy - Peabody Journal of Education, March, 1964
Copy - Tennessee Higher Education, published quarterly by the
    Tennessee College Association Center for Higher
    Education, George Peabody College for Teachers
George Peabody College for Teachers Self-Study Report to
    Southern Association of Colleges and Schools
    (March 1964)
Five Year Profile of Faculty Salaries for Peabody College
    (1958-59 through 1962-63)
Enrollment statistics - fall 1962
Enrollment of New Students - 1963 - fall quarter -
    Distribution by state and foreign countries and
    by high school
Departmental distribution of grades - fall quarter, 1962

UNIVERSITY OF TENNESSEE - Knoxville, Tennessee

Catalogues (4)
Schedule of classes
Faculty handbook
Student handbook
Organizational charts
Copy - The University of Tennessee Record (bimonthly publication)
Budget, fiscal year 1964
Financial report for year ended June 30, 1963
Memo - preparation of preliminary estimates and work programs
    for fiscal year ending June 30, 1965
Report on the summer quarter, for the summers of 1962 and 1963

Study of Estimated Minimal Space and Building Capital Requirements to 1980 (May 1962)
Data on Capital Improvement Project Estimates
Copy - Definitions for Various Classifications of Building Areas
Paper - Enrollment Growth Potential of the University of Tennessee to 1980
Student credit hour cost data
Faculty Service Report - sample form

CHRISTIAN EDUCATION COMMISSION, BAPTIST GENERAL CONVENTION OF TEXAS - Dallas, Texas

Baptist Diary, 1964 - containing budget data and allocations to colleges
Financial analysis for Texas Baptist Schools (June 1, 1960 - May 31, 1961)
The Future Development of the Christian Education Program of the Baptist General Convention of Texas
"The New Trusteemanship," by Francis C. Pray, reprinted from College and University Journal, published by the American College Public Relations Association, Washington, D.C.
Information on proposed study and sample forms used to secure information from institutions on additional space needs if maximum enrollment goal is set by board
Student Scholarships and Endowed Chairs and Professorships

RICE UNIVERSITY - Houston, Texas

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Accounting manual
Non-academic personnel policy manual
Budget, 1963-64
President's report (including financial report), 1962-63
Memo concerning schedule for catalogue copy, promotion recommendations, and budget requests
Memo concerning budget request forms - also sample form

SOUTHERN METHODIST UNIVERSITY - Dallas, Texas

Catalogue
Schedule of classes
Faculty handbook
Student handbook

Organizational chart
Budget, 1964-65
Board of Trustees Work Book, November 1, 1963 (including financial report, budget, faculty salary studies)
Audit report, June 30, 1963
Registrar's report, 1963-64
Statement on overhead distributions
Statement of space utilization
Statement on accounting procedures
Cost survey summary
Physical plant indices
Student-teacher ratio data, first semester, 1963-64
Sample form used in collecting unit cost data
Paper - Expansion of Activity and Costs at Southern Methodist University, 1954 to 1961
Statistical Analysis, Fall Semester 1963 and Spring Semester 1964 Enrollment Report
Report of the Faculty Committee on Recruitment and Tenure (April 1964)
Report of the Faculty Planning Committee of the Master Plan
The Master Plan, Southern Methodist University, 1963-69
Appendices to the Master Plan
Library statistics, July 1962 - June 1963

TEMPLE JUNIOR COLLEGE - Temple, Texas

Catalogue
Schedule of classes
Code and Bylaws of Temple Junior College
President's report (Temple's Success Story in the Field of Education)
Budget, 1963-64
Statement of Cash Receipts and Disbursements and Comparison of Actual and Budget Operations, Period Ended October 31, 1963

TEXAS COMMISSION ON HIGHER EDUCATION - Austin, Texas

No materials

UNIVERSITY OF TEXAS - Austin, Texas

Catalogues (7)
Schedule of classes
Final announcement of courses, long session, 1963-1964
Faculty handbook
Student handbook
Activities handbook
Chart of accounts
Budget, 1963-64

Auxiliary enterprises budget, 1963-64
Financial report, fiscal year ended August 31, 1962
Report of the Registrar, 1961-1962
Public Higher Education in Texas, 1961-1971: Report of the Texas Commission on Higher Education to the Governor and the Legislature of the State of Texas
Student-teacher ratios, fall semester, 1958-1962
Report on small classes, fall semester, 1963-64
Memo - Faculty Service Report
Library statistics and report of University Library for year ending August 31, 1963
Space utilization study, fall semester, 1963
Faculty salary data -
    Budgeted teaching salaries and positions, by rank
    Budgeted full-time teacher equivalents and budgeted teaching salaries, by program

UNIVERSITY OF UTAH - Salt Lake City, Utah

Catalogue
Schedule of classes
Faculty manual
Student handbook
Staff manual
The Daily Utah Chronicle, April 9, 1964 (student newspaper)
Chart of accounts
Organizational chart
President's report, July, 1963
Financial report for the fiscal year ended June 30, 1963
Budget exhibits showing comparison of 1962-63 and 1963-64 budgets
Report of the registrar, 1962-63
Regulations of the Board of Regents and Faculty Regulations of the University of Utah
Financial Highlights, University of Utah, 1961-62
An Analysis of Future Enrollments in Utah's Colleges, 1956-57
Growth: A University of Utah Responsibility Report
Report to the President from Cooperative Research, University of Utah, for Fiscal Year 1961
Quarterly Statistical Summaries - Winter Quarter, 1963-64 and Autumn Quarter, 1963-64 (Office of the Registrar)
Study - Cost Per Student Credit Hour, University of Utah, Academic Year 1962-63, by College and Department

UTAH COORDINATING COUNCIL OF HIGHER EDUCATION - Salt Lake City, Utah

The Enabling Act for the Coordinating Council of Higher Education
Organization of Utah Higher Education (listing of institutions, location, type of instruction, and enrollment)
Coordination of Utah Higher Education

Faculties of the Utah Institutions of Higher Education
Brochure - Coordinating Higher Education in Utah
Proposal - A Statewide Fiscal Reporting System
Instructions for Completing Personnel Data Forms - also
    sample form
Budget Analysis - 1959-63 (Actual and Budgeted) and 1963-65
    (Estimated) - October 1962
Curriculum Analysis - A Summary Report: 1959-62 (May, 1963)

BENNINGTON COLLEGE - Bennington, Vermont

Catalogues (3)
Student handbook
Employees' manual
Schedule of classes
Budget, 1964-65
Financial report, year ended June 30, 1963
Financial projection for Bennington College with increase to 600
    students (June 1963)
List of assumptions used in the financial projection (June 1963)
Fee schedule, 1964-65
Policy regarding financial aid for students in college
Brochure on tuition refund plan
Cost per student figures, 1964-65
Registration report - first term, 1964-65 (as of 9/16/64)
Annual report of the librarian (7/1/62 - 6/30/63) and circulation
    statistics for 1963-64
Agreement between Bennington College and the Building Service
    Employees' Union - 7/1/64 - 6/30/66
Sample forms -
    Schedule of classes
    Commitment for payment of college fees

JOHNSON STATE COLLEGE - Johnson, Vermont

Catalogue
Student handbook
Faculty handbook
Schedule of classes
Budget, Fiscal Years 1962 and 1963 and Request for Fiscal Years
    1964 and 1965
Statistical Summary, 1963-64
Enrollment data, fiscal years 1962-1965
Projection of financial needs - operating and capital construction
Sample form -
    Budget summary report

UNIVERSITY OF VERMONT - Burlington, Vermont

Catalogues (6)
Schedule of courses

Student handbook
Employee handbook
Chart of accounts
Organizational charts (10)
President's report, 1961-63
Financial report for the year ended June 30, 1963
Budget summary, 1961-62 - 1964-65
Booklet of policies and procedures for conferences and institutes
The University of Vermont Self Study, 1962
Comparative statements of total educational and general expenditures reflected on a percentage basis, 1954-55 - 1961-62
Statistics on full-time administrative employees as of March 1, 1963
Data on average faculty salaries, University of Vermont for Years 1959-60 - 1963-64 (expressed in dollars and in indices which show percentage increases compared with 1959-60)
Faculty time utilization data
Copy - Questionnaire used in University of Vermont and Vermont State Colleges joint survey of physical facilities
Booklet - The Organization of the University of Vermont and State Agricultural College, 1791-1959

VERMONT STATE COLLEGES - Burlington, Vermont

Chart of accounts
Financial report for the year ended June 30, 1963
Vermont State Colleges Board of Trustees Report to the Governor, June 1962
Presentation to the Senate and House Appropriations and Education Committees, 1963 General Assembly, by the Vermont State Colleges - February 1963 (state appropriations budget request)
Policy and Procedure Letters Nos. 1-26 (in lieu of policy and procedure manual)
Suggested Plan for Action, Vermont State Colleges, August 1964
Inter-institutional cost comparisons of the 4 Vermont State Colleges for fiscal years 1962-65

UNIVERSITY OF VIRGINIA - Charlottesville, Virginia

Catalogues (13)
Schedule of classes
Employee handbook
The Jeffersonian - general information bulletin given to entering students, newly appointed faculty members and administrative staff
Administrative procedures manual
Organizational chart
Chart of accounts and object codes
Comptroller's report - 1961-62 and 1962-63
Student enrollment for period ending January 31, 1964
Faculty-student ratios for 1961-62

Summary of Direct Instructional Cost Per Student Course Enrollment and Cost Per Student Semester Hour for All Schools and Departments Distributed According to Undergraduate Classes, Graduate or Special Level (1959-60)
Summary of Adjustments to Direct Instructional Cost, Student Course Enrollment and Student Semester Hours According to Reimbursement to and from Other Schools Giving Grand Total for Direct Instructional Cost, Student Course Enrollment and Student Semester Hours (1959-60)
Proposed General Faculty Salary Scale, Fall 1964
AAUP Report on Academic Salary Data and Compensation Indices for the Academic Year 1963-64
Teaching load report
Faculty Service Report - instruction sheet and sample form
Library statistics - 1957 to 1963 and minutes of August 7, 1963 meeting of Board of Aldermen
Sample forms -
    Budget request
    State appropriations request

VIRGINIA MILITARY INSTITUTE - Lexington, Virginia

Catalogues (2)
Schedule of classes
Organizational chart
Annual report, 1962-63
Biennial budget, 1964-66
Chart of accounts
VMI Regulations, Parts I, II, and III
Guide to Virginia Military Institute
"The Pursuit of Responsible Citizenship"
Approved Faculty Positions for September 1964
Fees Charged VMI Cadets, 1953-1963 and Proposed 1964-1965
Budget and Accounting Classifications, Definitions, and Codes, Effective July 1, 1964 (Commonwealth of Virginia)
Instructions for Budget Preparation and Presentation, 1964-1966 Biennial Budget (Commonwealth of Virginia)
Studies of Instructional Costs and Faculty Work Loads - November 1963
Study of VMI Faculty Work-Loads for the First Semester, 1963-64
Maintenance and Operations - Cost per Cadet, 1958-59 - 1962-63

VIRGINIA STATE COUNCIL ON HIGHER EDUCATION - Richmond, Virginia

Virginia Cost Study of Publicly-Supported Institutions of Higher Learning (February 1964)
Financial statement of income and expenditures for each institution (figures not included in Virginia Cost Study because data were not comparable)

Chart of Accounts for Institutions of Higher Learning, Effective July 1, 1964
Position Analysis for Seven Colleges, 1963
Various summaries, analyses, comparisons, and recommendations on 1964-66 legislative budget requests
Physicians for Virginia - Part I: A Study of Virginia's Medical Schools
Physicians for Virginia - Part II: A Study of the Possibility of Establishing a Private Medical School in the Tidewater Area of Virginia
Teachers for the Public Schools of Virginia - Present and Future
Revised salary schedule authorization approved by the governor effective September 1, 1962
Comparative data on faculty salaries
Teaching Faculty and Research Personnel Salary Study, 1963-64
Computation of Student Credit Hour Costs 1962-63 - Old Dominion College
Ten-Year Study of Degrees Awarded by Type and Field of Study, 1954-55 through 1963-64
Space Utilization Study, Fall, 1962, by John L. Green

EASTERN WASHINGTON STATE COLLEGE - Cheney, Washington

Catalogue
Schedule of classes
Employee handbook
By-Laws for Government of Eastern Washington College of Education, Adopted September 18, 1954
Organizational chart
Chart of accounts
Financial report, 1961-62
Proposed budget, 1963-65
Biennial report to the Board of Trustees, June 30, 1963
Personnel Rules for the Classified Staff Service of Eastern Washington State College
Minutes of the Inter-Institutional Committee of Business Officers, June 10-11, 1963
Investment in Human Resources: The Need and the Opportunity in the State of Washington (A Report on Higher Education Enrollments to 1970 from the Council of Presidents)
Paper - A First Year of Voluntary Coordination in Nonacademic Affairs by the Five Public Institutions of Higher Learning in Washington - November 1, 1963
Report - Higher Education: Programs for Budgeting, Accounting, and Reporting (November 1963)
Report - Higher Education: Staffing Formulas and Proposals for Revisions (November 1963)
Report - Faculty Salaries - Institutions of Higher Education (November 1963)
Memo - Factors in College Choice (February 1964)
Memo - Growth Trends by Department of Instruction for Winter Quarter 1963 When Compared to Winter Quarter 1962 (April 1963)

Memo - Direct Monthly Teaching Costs Per Student-Credit-Hour, Total Academic Year 1961-62 and a Research Report (August 1962)
Memo - Trends of Programs by Department for Academic Year 1962-63 Compared with Academic Year 1961-62 (June 1963)
Copy of letter from Department of Health, Education, and Welfare concerning 1963 Cumulative Report of National Defense Student Loan Accounts (February 1964) - sample bureaucratic letter
Copy - EWSC Guide including article "Current Admission Practices Explained" (January 1963)
Data on cost per student credit hour by course level - full academic year: fall, winter, spring quarters, 1962-63
Washington State Institutions of Higher Education - Student Housing Study, November 1963
Letter of Appointment form - sample copy

WASHINGTON STATE UNIVERSITY - Pullman, Washington

Catalogues (2)
Schedule of classes
Faculty manual
Student handbook
Business Policies and Procedures
Organizational chart
Financial report for fiscal year ended June 30, 1963
Biennial report, 1962
Operating budget, 1963-65
Capital Outlay Expenditure Estimates, 1963-1969
Breakdown of Appropriations for the State College of Washington
Paper - A First Year of Voluntary Coordination in Nonacademic Affairs by the Five Public Institutions of Higher Learning in Washington (November 1963)
Memo - Review of Inter-Institutional Committees among the University of Washington, Washington State University, Central Washington State College, Eastern Washington State College, Western Washington State College (November 1963)
Instructional staff data (used in budget request) - October 1963
Faculty service report - instructions and sample form
Load study taken from materials included in faculty service reports
Dean's teaching load study (December 1963)
Faculty-student ratio data
Net Direct Instructional Cost by Departments, Academic Year 1962-63
Memo - Classroom Utilization - Fall Semester 1963
Maintenance cost analysis materials
Allotment summary, 1963-65

Paper - Program for a New Veterinary Medical Library at Washington State University (November 1962)
Proposed electronic data processing system for Washington State University - "Library System Application"
Copy of letter concerning conversion of existing tape records to four kinds of 90 column tape records
Registrar's report (one sheet) - sample page

POTOMAC STATE COLLEGE - Keyser, West Virginia

Catalogue
Student handbook
Schedule of classes
Organizational chart
President's report, 1962-63
Chart of accounts
Budget
Statement of Essential Facts - Potomac State College of West Virginia University, Keyser, West Virginia
Information concerning Potomac State College Business Office
A Study of State Institutions of Higher Education in West Virginia, Centennial 1863-1963
Breakdown of instructional cost per student credit hour by department
Data on direct instructional cost per student credit hour, instructional supporting cost per FTE student, and two year cost by degree and major, 1962-63
Financial report for year ended June 30, 1963
Requisition form for supplies, recommended repairs and alterations, and equipment for 1964-65 - sample copy

WEST VIRGINIA UNIVERSITY - Morgantown, West Virginia

Catalogue
Schedule of classes
Faculty handbook
Student handbook
Financial report for year ended June 30, 1963
Annual report, 1962-63
Chart of accounts
Data on Full-Time Faculty Salaries, 1963-64 as of July 1, 1963
Paper - Year-Round Operation (April 1963)
A Study of Space Utilization, First Semester, 1962-63
Report - Class Sizes, Number of Courses, Average Course Enrollment and Student Credit Hours, First Semester, 1961 and 1962 and Number of Faculty Members, 1960-61 to 1962-63
Report - Faculty Load and Instructional Cost Analysis - First Semester, 1962-63

Copy - Comparative Direct and Supporting Instructional Costs, West Virginia State-Supported Colleges and Universities, 1962-63
Report of the Joint Committee of the Board of Governors of West Virginia University and the West Virginia Board of Education to the Subcommittee on Higher Education of the West Virginia Legislature
Reprint of article - Instructional Cost and Quality, by Stanley Ikenberry
Report - The Development of a Bibliographic Center in the West Virginia Region: Current Practices and Future Directions (summary report of findings of work on project aimed at broadening the service potential of the libraries within the West Virginia region)
Sample forms -
  Faculty Service Report
  Budget Request form

UNIVERSITY OF WISCONSIN - Madison, Wisconsin

Catalogues (10)
Schedule of classes
Brochure - Information for New Faculty
A Guide to the University of Wisconsin Campus
Student handbook (2)
The University of Wisconsin History Digest: A Land-Grant Centennial Publication
Laws and Regulations Governing the University of Wisconsin
Accounting Code Manual for Expenditures (chart of accounts)
President's report, 1959-61
Financial report for the year ended June 30, 1962
1963-64 Budget
1963-64 Budget Salary Analysis
Instructions - 1963-65 Biennial Legislative Budget
Instructions - 1963-64 Budget
Comparison of Number of Credits Per Instructional Staff Member (Using Full-Time Equivalent Instructional Staff), 1940-62
Comparison of Staff, Credits, and Cost Per Credit, 1961-62
Student-Faculty Ratio, Madison Campus, 1953-54 - 1962-63
Cost Per Credit - Total Direct Instructional Budget Cost by College, 1949-51 - 1961-62
Cost Per Student figures, 1963-64 Budget
Proposal on Enrollment Reporting - September 9, 1963
Planning Physical Facilities for Higher Education (Preliminary Program for a Seminar Sponsored by University Facilities Research Center and the University Extension Division)
Draft Project Proposal for A Method for Determining Future Physical Facility Requirements for Institutions of Higher Education

Some Observations on the Possibilities of Instituting Cooperative Automated Systems among CIC Libraries - April, 1964

WISCONSIN BOARD OF REGENTS OF STATE COLLEGES - Madison, Wisconsin

No materials

WISCONSIN STATE COLLEGE AT WHITEWATER - Whitewater, Wisconsin

Catalogue

UNIVERSITY OF WYOMING - Laramie, Wyoming

Catalogue
Schedule of classes
Faculty and Staff Manual
Student handbook
By-Laws and Regulations of the Board of Trustees, The University of Wyoming
Organizational charts
President's report, 1962-63
Statistical Summary - 1962-63 (annual report)
University of Wyoming Budgets and Indexes, 1963-64
72nd Annual Report of the President to the Board of Trustees, 1962-63
Six-Year University Budget, 1963-64 - 1968-69
Analysis of Full-Time Academic Faculty - Fall Semester, 1963-64
Salary Data - Full-Time Non-Academic Staff - 1961-62 (data from 11 institutions)
Salary Data - Fall 1963 - "University of Idaho Study"
Comparison of Faculty Salaries - Fall 1963
Enrollment data - 1962-63
Freshman enrollment figures - fall semester, 1959-60
Per Student Credit Hour Costs - 1957-58 - 1962-63 (by College and Division)
Summary - Questionnaire on Certain Costs, Academic Year 1962-63
Class size data, fall semester, 1962-63
Space Utilization Study - Fall Semester, 1963-64

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APPENDIX H

LETTER ARRANGING INSTITUTIONAL VISITATIONS BY PROJECT STAFF

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January 17, 1964

Mr. Thomas M. Libby
Bursar
Bowdoin College
Brunswick, Maine

Dear Mr. Libby:

We have received the materials which you forwarded from Bowdoin College in connection with this study. Thank you very much for your cooperation.

We have now reached the point of starting our visitations to the institutions included within our sample. I am planning on visiting Bowdoin College on January 27, arriving at about 9:00 in the morning.

There are certain officials with whom we would like to talk during our visit with you. We would like to spend a few minutes with the President and a longer time with some other official with major, over-all policy responsibilities unless the President feels that he has an hour or more to devote to this visit. We would also want to talk with the chief financial or business officer of the institution and the chief academic officer. In addition, if you have a director of institutional research or anyone performing similar duties, we should meet with him, as well as with any other officials you might think it important for us to see.

Since we will be covering several institutions within a geographical area in each trip, we realize that it will be almost impossible for us to hope that everyone we might wish to see would be available at the time of our visit. If such is the case, we would hope that you might substitute another official with whom we might talk, since we will be working on a very tight schedule.

I will plan on contacting you upon my arrival at Bowdoin on the 27th unless we hear from you to the contrary.

Sincerely yours,

John E. Swanson

JES:mpk

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APPENDIX I

LIST OF INSTITUTIONAL STAFF MEMBERS INTERVIEWED BY PROJECT STAFF DURING VISITATIONS TO INSTITUTIONAL SAMPLE

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ALABAMA

Alabama College - Montevallo

Lee A. Barclay, Business Manager and Treasurer
D. P. Culp, President
John B. Walters, Jr., Dean of the College

Tuskegee Institute - Tuskegee Institute

L. H. Foster, President
H. K. Logan, Business Manager
Edward L. Pryce, Superintendent of Buildings and Grounds
A. P. Torrence, Dean of Academic Affairs
Lucius A. Williams, Chief Accountant

ARKANSAS

Arkansas Commission on Coordination of Higher Educational Finance - Little Rock

E. L. Angell, Executive Director

University of Arkansas - Fayetteville

V. W. Adkisson, Dean of the Graduate School
J. R. Carney, Controller
James W. Green, Administrative Vice President
David W. Mullins, President
P. M. Young, Vice President for Academic Affairs

CALIFORNIA

Budget Division, Department of Finance, State of California - Sacramento

Edwin W. Beach, Chief, Budget Division
Roy M. Bell, Assistant Director of Finance (Fiscal Affairs)
Lowell Gano, Senior Budget Analyst
Robert Harris, Assistant Chief Budget Analyst
Lee Lutz, Senior Budget Analyst

California Institute of Technology - Pasadena

Robert F. Bacher, Provost
Robert T. Baker, Comptroller and Assistant Secretary
Lee A. DuBridge, President
R. B. Gilmore, Vice-President for Business Affairs
Ernest Hugg, Assistant Director of Physical Plant
Charles Newton, Director of Development and Assistant to the President

The California State Colleges - Inglewood

George G. Clucas, Chief, Budget Planning
Arthur J. Hall, Dean of Institutional Research

Pacific Oaks College - Pasadena

Evangeline Burgess, President
Marjorie Lee, Business Officer
Elizabeth Purcell, Director of Development

University of California - Berkeley

University-Wide

W. L. Butler, Senior EDP Analyst
R. Courtney Cornett, Supervisor of Data Processing
Charles J. Courey, Budget Analyst
Loren M. Furtado, Budget Officer
N. H. Gross, Chief Accountant
Sidney Hoos, Dean of Academic Affairs
Frank Kidner, Dean of Educational Relations
S. A. Musser, University Engineer
Donovan Smith, Specialist in Physical Planning
George E. Stevens, Assistant Comptroller
D. Gordon Tyndall, Director of Analytic Studies
Harry R. Wellman, Vice President of the University
Bert Wolfman, Acting Director, Analytic Studies

Berkeley Campus

Raymond G. Bressler, Jr., Vice Chancellor - Berkeley Campus (Planning and Development)
David Jones, Head, Campus Research Office
Errol W. Mauchlan, Assistant Chancellor for Budget
Norman M. Mundell, Accounting Officer
David Reed, Chairman, Building and Campus Development

University of Redlands - Redlands

George H. Armacost, President
Gilbert L. Brown, Administrative Assistant to the President
Harry H. Hendon, Treasurer
Herbert McD. Moore, Chief Accountant
Charles O. Pierpoint, Business Manager
Marc Jack Smith, Dean of the Faculty

University of Southern California - Los Angeles

Carl M. Franklin, Vice President, Financial Affairs
Thomas P. Nickell, Jr., Vice President, University Planning
Elton D. Phillips, Business Manager
Paul A. Walgren, Assistant Treasurer

COLORADO

Colorado State Budget Office - Denver

Don Moscowitz, Budget Analyst
Con F. Shea, State Budget Director

Colorado State University - Fort Collins

Stanley J. Ahmann, Academic Vice President and Director of Institutional Research
Robert F. Arndt, Controller
A. R. Chamberlain, Vice President for Administration
J. R. Hehn, Budget Officer
Joseph M. Whalley, Business Manager

University of Colorado - Boulder

John W. Bartram, Director of the Budget
James W. Johnston, Controller
Thomas R. Mason, Director of Institutional Research and Planning
Joseph R. Smiley, President
Ernest E. Wahlstrom, Acting Dean of Faculties
Eugene H. Wilson, Vice President for Business and Finance

University of Denver - Denver

Chester M. Alter, Chancellor
Harold Anderson, Accounting Officer
Miss Marjorie Cutler, Registrar
Philip L. Davis, Controller
Jeryl C. McKinney, Budget Coordinator and Internal Auditor
James E. Perdue, Dean, College of Arts and Sciences
Harvey D. Willson, Vice Chancellor for Business Affairs and Treasurer

Western Interstate Commission for Higher Education - Boulder

Kevin Bunnell, Associate Director
Owen Knorr, Director of Special Regional Programs
Robert H. Kroepsch, Director

CONNECTICUT

Department of Finance and Control, State of Connecticut - Hartford

Jim Paloshian, Examiner in Education
Fred A. Schuckman, Director of the Budget
George Steinmetz, Examiner in Education

University of Connecticut - Storrs

J. H. Austin, Controller
Homer A. Babbidge, Jr., President
Ron Dickerson, Associate Registrar
John M. Evans, Vice President for Financial Affairs
Franklin O. Fingles, Registrar
Dorothy Goodwin, Member of Long Range Planning Commission
Edward Hanna, Chief Accountant
Wallace A. Moyle, Director of Physical Plant
Dick Russo, Chief, Bureau of Institutional Research
A. E. Waugh, Provost

University of Hartford - Hartford

Vincent B. Coffin, Chancellor
Gordon B. Cross, Dean, School of Business Administration
Robert Henderson, Institutional Research Assistant
George Menke, Registrar
Ray S. Pilkonis, Business Manager and Controller
Hector Prud'homme, Director of Resources
Richard E. Smith, Associate Registrar - Central Records
Allan S. Wilson, Vice Chancellor for Administration

Wesleyan University - Middletown

Victor L. Butterfield, President
Hess Haagen, Registrar
Burton C. Hallowell, Vice President for Planning and Development
William Kerr, Assistant to the Provost
Howard B. Matthews, Vice President in Charge of Business Affairs and Treasurer
Joseph C. Palamountain, Jr., Provost

DELAWARE

University of Delaware - Newark

Paul Becker, Comptroller
Norman Crawford, Assistant to the Provost
Bruce J. Partridge, Vice President for Business and Management
John W. Shirley, Vice President for Academic Affairs and Provost
Daniel W. Wood, Administrative Assistant to the President
George M. Worrilow, Vice President for University Relations

DISTRICT OF COLUMBIA

George Washington University - Washington

B. Richard Berg, Director of Public Relations
H. John Cantini, Assistant Treasurer
Thomas H. Carroll, President
Oswald S. Colclough, Provost and Dean of Faculties
Henry W. Herzog, Vice President and Treasurer
William D. Johnson, Comptroller
Robert S. Jordan, Assistant to the President
John F. Latimer, Assistant Dean of Faculties
Joseph Y. Ruth, Director of Admissions
Sally Oleon Shames, Special Assistant, Office of the Vice President for Plans and Resources
William P. Smith, Assistant to the Dean of Faculties for Planning

FLORIDA

Florida Atlantic University - Boca Raton

Palmer H. Craig, Dean of Science and Mathematics
Jack C. Guistwhite, Registrar
Roger H. Miller, Dean of Administrative Affairs and Business Manager
Eugene A. Robinson, Special Assistant for Development
Adelaide R. Snyder, Director of University Relations
Howard R. Steele, Assistant Director of Computer Technology
Kenneth R. Williams, President

Miami-Dade Junior College - Miami

William D. Coleman, Business Manager
Theodore Koschler, Director of Computer Services
Peter Masiko, Jr., President
Walter Pike, Director of Finance

New College - Sarasota

George Baughman, President

University of Miami - Coral Gables

Paul J. Apt, Controller
Werner A. Baum, Vice President for Academic Affairs and Dean of Faculties
Eugene E. Cohen, Vice President and Treasurer
Joel Samuel, Manager, Systems and Procedures
Keith W. Smith, Registrar
Henry King Stanford, President

GEORGIA

Board of Regents of the University System of Georgia - Atlanta

James A. Blissit, Treasurer

Emory University - Atlanta

Judson C. Ward, Jr., Vice President and Dean of the Faculties
Robert F. Whitaker, Assistant to the President

Georgia Institute of Technology - Atlanta

J. R. Anthony, Controller
Harry Baker, President of Research Institute, Assistant Controller (for Research)
Ewell I. Barnes, Associate Controller
W. L. Carmichael, Registrar and Director of Admissions
Joe W. Guthridge, Assistant to the President - Director of Development
Edwin D. Harrison, President
M. Joe Helms, Assistant to the Administrator of Research
Paul Weber, Dean of Faculties

Medical College of Georgia - Augusta

R. P. Ahlquist, Associate Dean (Research)
Thomas N. Dwyer, Comptroller
David B. McCorkle, Director of Student Affairs
Harry B. O'Rear, President
Rufus F. Payne, Superintendent, Teaching Hospital (Talmadge Memorial Hospital)
W. G. Rice, Dean, School of Medicine

Southern Regional Education Board - Atlanta

Winfred Godwin, Executive Director
James L. Miller, Jr., Associate Director for Research
E. F. Schietinger, Research Associate

IDAHO

University of Idaho - Moscow

Kenneth A. Dick, Vice President for Financial Affairs and Bursar
F. Lee O'Neill, Registrar
H. Walter Steffens, Vice President for Academic Affairs
Donald R. Theophilus, President
J. W. Watts, Business Manager

ILLINOIS

Chicago City Junior College - Chicago

Clifford G. Erickson, Executive Dean
Donald W. Hill, Assistant to the General Superintendent - Budget, Chicago Board of Education
Albert Kimmell, Controller, Chicago Board of Education
I. B. Slutsky, Assistant to the Executive Dean
Turner Trimble, Dean, Amundson-Mayfair Branch

Illinois Institute of Technology - Chicago

Fred Eckford, Registrar
Martin A. Elliott, Academic Vice President
Vern E. Kelly, Jr., Controller
J. J. Ritterskamp, Vice President and Treasurer

Loyola University - Chicago

James Anderson, Assistant to the President
Daniel Beattie, Controller
Jack R. Carollo, Assistant to the Registrar
Franklin C. Fischer, S.J., Treasurer
Elizabeth McCann, Registrar
James F. Maguire, S.J., President
Robert W. Mulligan, S.J., Vice President and Dean of Faculties
Frank Strachota, Assistant to the Vice President and Business Manager

Roosevelt University - Chicago

Lynn Mack, Director of Institutional Research
Robert J. Pitchell, President
H. H. Sheldon, Acting Dean of Faculties
Melvin T. Tracht, Treasurer

INDIANA

DePauw University - Greencastle

Robert E. Crouch, Secretary of Alumni Affairs
Robert E. Farber, Dean of the University
William E. Kerstetter, President
Norman J. Knights, Director of Public Relations and Development
Deward W. Smythe, Comptroller

Indiana State College - Terre Haute

Edward F. Bocko, Assistant to the President
R. W. Holmstedt, President

Rose Polytechnic Institute - Terre Haute

John L. Bloxsone, Vice President for Development
John A. Logan, President
George H. Moench, Bursar
Herman A. Moench, Vice President and Dean of the Faculty
Charles C. Rogers, Associate Professor of Electrical Engineering and Director of Research
Ralph M. Ross, Dean of Students

Saint Mary-of-the-Woods College - Saint Mary-of-the-Woods

Sister Marie Perpetua, President
Sister Mary Josephine, Dean of the College
Sister Myra Ann, Business Officer
William D. Sullivan, Instructor in English

IOWA

Cornell College - Mount Vernon

Charles M. Cochran, Vice President and Treasurer
Evelyn Fisher, Registrar

State College of Iowa - Cedar Falls

Wallace L. Anderson, Dean of Instruction
James L. Bailey, Treasurer and Assistant Business Manager
Marshall R. Beard, Registrar and Admissions Officer
William Lang, Dean of Instruction
Fred Lott, Professor of Mathematics (assists in Cost Studies)
J. W. Maucker, President
Daryl Pendergraft, Assistant to the President
Herbert M. Silvey, Director of Institutional Research

KANSAS

Kansas State University - Manhattan

Daniel D. Beatty, Business Manager
William Bevan, Vice President for Academic Affairs
Ellsworth M. Gerritz, Dean of Admissions and Records
James A. McCain, President
A. L. Pugsley, Vice President
Forest Whan, Director of Institutional Research

Washburn University - Topeka

Arthur F. Engelbert, Academic Vice President and Dean of the College
John Harter, Registrar and Director of Admissions
Harold E. Sponberg, President
Richard G. Vogel, Vice President for Business Affairs and Treasurer

KENTUCKY

Berea College - Berea

Virginia Auvil, Registrar
L. D. Bibbee, Vice President for Business Affairs
Francis S. Hutchins, President
Louis Smith, Dean of the College
Kenneth H. Thompson, Associate Dean of the College

Division of the Budget, Kentucky State Department of Finance - Frankfort

Robert M. Cornett, Director

Kentucky State Council on Public Higher Education - Frankfort

Ellis Hartford, Executive Secretary
A. J. Hauselman, Research Associate

Morehead State College - Morehead

Adron Doran, President
Ray Hornbeck, Assistant to the President
Warren C. Lappin, Dean of the College
Russell R. McClure, Assistant to the President

Villa Madonna College - Covington

Robert C. Cornell, Business Manager
Rt. Rev. Msgr. John F. Murphy, President
Rev. Charles W. Rooks, Acting Academic Dean
Sister M. Irmina Saelinger, Registrar

MAINE

Bowdoin College - Brunswick

James S. Coles, President
James Granger, Assistant Comptroller
Arthur L. Greason, Jr., Dean of Students
Wolcott A. Hokanson, Jr., Executive Secretary
Nathaniel Cooper Kendrick, Dean of the College
Thomas M. Libby, Bursar
Glenn R. McIntire, Assistant Treasurer

MASSACHUSETTS

Boston University - Boston

Stuart Grout, Director of Academic Services
Kurt M. Hertzfeld, Vice President for Administrative Affairs
Joseph Kiebala, Jr., Business Manager
Robert Moser, Comptroller
Lawrence R. Paul, Budget Director
Lloyd Peterson, Registrar
Alfred Pugliese, Associate Comptroller
Everett Walters, Vice President for Academic Affairs
Charles B. Woodman, Planning Officer

Massachusetts Institute of Technology - Cambridge

Paul Cusick, Comptroller
Robert E. Hewes, Director of Institutional Studies
Philip Keohan, Senior Accounting Officer
M. G. Kispert, Vice President for Academic Administration

New England Board of Higher Education - Winchester

Martin Lichterman, Executive Secretary
Virginia Senders, Staff Associate

Smith College - Northampton

Helen B. Bishop, Registrar
William A. Bodden, Treasurer and Controller
George F. Mair, Acting Director of Graduate Study
Doris Silbert, Dean
Jack W. Simpkin, Assistant Controller

State College at Lowell - Lowell

William F. Dunn, Assistant to the President (Business Manager)
Daniel H. O'Leary, President

Tufts University - Medford

Leonard C. Mead, Senior Vice President and Provost
John F. Mitchell, Comptroller
Nils Y. Wessell, President

MICHIGAN

Alma College - Alma

William B. Boyd, Dean of the Faculty
John R. Kimball, Director of Admissions and Dean of Student Affairs
Helen C. McCurdy, Librarian
Stephen Meyer, Jr., Business Manager
Molly Parrish, Registrar
Robert D. Swanson, President

Budget Division, Department of Administration, State of Michigan - Lansing

W. Weldon Allen, Examiner
Richard Beers, Deputy Director
Paul L. Wileden, Director

Eastern Michigan University - Ypsilanti

Eugene B. Elliott, President
Helen McCalla, Assistant Controller
Lewis E. Profit, Vice President - Business and Controller

Michigan Council of State College Presidents - Lansing

Ira Polley, Executive Director

Michigan Technological University - Houghton

G. Ralph Noble, Director of Division of Continuing Education
Thomas C. Sermon, Registrar
Raymond L. Smith, Coordinator of Research
Ernest J. Townsend, Controller
J. R. Van Pelt, President
E. T. Williams, Vice President
Donald G. Yerg, Director of Graduate Studies

Wayne State University - Detroit

William Dean, Coordinator of Fiscal Services
Winfred A. Harbison, Vice President for Academic Administration
Clarence B. Hilberry, President
Robert E. Hubbard, Director of Institutional Research

Arthur Neef, Vice President and Provost
Olin E. Thomas, Vice President and Treasurer
Randall M. Whaley, Vice President for Graduate Studies and Research

MINNESOTA

Augsburg College and Theological Seminary - Minneapolis

Oscar A. Anderson, President
Peter Armacost, Dean of Students
B. P. Fosse, Business Manager
Martin Quanbeck, Dean of the College

Board of College Education, The American Lutheran Church - Minneapolis

Norman D. Fintel, Executive Director

Carleton College - Northfield

William B. Dunham, Vice President for Planning and Development
Richard C. Gilman, Dean of the College
John W. Nason, President
Charles Yale Pfoutz, Assistant Business Manager
Marvin R. Williams, Assistant Treasurer
Frank I. Wright, Vice President and Treasurer

University of Minnesota - Minneapolis

Roy F. Archer, Director of Insurance and Retirement
Chester B. Grygar, Budget Analyst
Clinton Johnson, Assistant Vice President and Treasurer
Lawrence R. Lunden, Vice President for Business Administration
True E. Pellengill, Recorder
Clifford S. Plank, Controller
William G. Shepherd, Vice President for Academic Administration

MISSISSIPPI

East Central Junior College - Decatur

Denver Bracken, Dean of Students
B. L. Griffin, Business Manager
Douglas M. Montgomery, President
B. J. Tucker, Dean of Academic Affairs

MISSOURI

Northeast Missouri State Teachers College - Kirksville

Pete Nicoletti, Head, Division of Business Services
Wray M. Rieger, Dean of Instruction
Walter H. Ryle, President
Kenneth C. Sykes, Administrative Assistant

Stephens College - Columbia

Gordon P. Freese, Administrative Vice President
Ralph C. Leyden, Director of Educational Development
James G. Rice, Academic Vice President and Dean of Instruction
Seymour A. Smith, President

Tarkio College - Tarkio

Duane Henre, Vice President for Administration
William H. Schechter, President
Lynn Taylor, Academic Dean

University of Missouri - Columbia

R. H. Bezoni, Comptroller
Irvin F. Coyle, Assistant to the President
Elmer Ellis, President
Harold Hume, Director of Cost Analysis
Ralph H. Parker, University Librarian
John W. Schwada, Chancellor
Kent Shelton, Assistant Comptroller

MONTANA

Montana State System of Higher Education - Helena

Alfred J. Dubbe, Jr., Executive Secretary

Montana State University - Missoula

Frank C. Abbott, Academic Vice President
Robert Johns, President
Calvin L. Murphy, Controller
Robert F. Pantzer, Financial Vice President
Vernon O. Sletten, Director, Educational Research and Service

NEBRASKA

Wayne State College - Wayne

W. A. Brandenburg, President
Dale Johansen, Administrative Assistant
Russell "M" Owen, Dean of Administration

NEVADA

University of Nevada - Reno

Charles J. Armstrong, President
Neil D. Humphrey, Business Manager
Ernest Palola, Director of Institutional Research
Kenneth E. Young, Executive Vice President

NEW HAMPSHIRE

Keene State College - Keene

Eleanor Betz, Registrar
Gray Pearson, Business Administration
David S. Sarner, Dean of Instruction
L. P. Young, President

NEW JERSEY

Newark College of Engineering - Newark

Richard S. Douglas, Assistant to the President
Stanley Dublin, Director of Research
William Mazell, Dean and Vice President
Herbert Soutar, Business Manager
Robert W. Van Houten, President

Princeton University - Princeton

James D. Brown, Dean of the Faculty
Robert F. Goheen, President
Ricardo A. Mestres, Financial Vice President and Treasurer
Raymond J. Woodrow, Assistant Treasurer and Director of Research Administration
Wilbur M. Young, Controller

Upsala College - East Orange

Carl J. Fjellman, Vice President and Dean of the College
Carl E. Glans, Comptroller
Evald B. Lawson, President

NEW MEXICO

New Mexico Board of Educational Finance - Santa Fe

William R. McConnell, Executive Secretary

University of New Mexico - Albuquerque

Pearl Blackburn, Accounting Officer
J. C. MacGregor, Registrar
William J. Parish, Dean, Graduate School
John Perovich, Controller
Tom L. Popejoy, President
Sherman E. Smith, Dean of Students

NEW YORK

Alfred University - Alfred

M. Ellis Drake, President
B. Dunn, Dean, College of Liberal Arts
Fred H. Gertz, Registrar and Director, Summer Sessions
Edward K. Lebohner, Treasurer and Business Manager
John F. McMahon, Dean of the College of Ceramics

Columbia University - New York

Jacques Barzun, Dean of Faculties and Provost
Paul Carter, Assistant Provost
Lawrence H. Chamberlain, Vice President
Thad L. Hungate, Professor of Higher Education, Teachers College
Charles P. Hurd, Registrar
Grayson Kirk, President
William M. Leary, Assistant Controller
Robert G. Olmsted, Vice President for Business and Finance
Ellis L. Phillips, Director of the Budget
Stanley Salman, Coordinator of University Planning

Cornell University - Ithaca

Dale R. Corson, Provost (Academic Affairs)
Lewis H. Durland, Treasurer
Thomas W. Mackesy, Vice-Provost, Dean of the Faculty
James A. Perkins, President
A. H. Peterson, Controller (Business Manager)
R. E. Terwilleger, Assistant Treasurer
J. B. Trousdale, Assistant Controller for Accounting
Herbert H. Williams, Registrar

Orange County Community College - Middletown

Robert Greenman, Academic Dean
George Stangler, Director of Business Operations
Herbert Sussman, Registration and Admissions

Union College - Schenectady

Carter Davidson, President of College and Chancellor of University
John R. Haines, Assistant to the President
Theodore Lockwood, Dean of the College
Theodore McIllwaine, Business Manager
Mary Elizabeth Wemple, Assistant Registrar

United States Military Academy - West Point

Brig. Gen. William W. Bessell, Jr., Dean of the Academic Board
Tom Hanretta, Chief, Special Projects Division
Mike LoPresti, Chief, Review and Analysis Division
Col. Tom Scott, Acting Chief of Staff
Major James S. Sibley, Assistant to the Dean
John Smith, Deputy Comptroller
George E. Wood, Jr., Chief, Budget Division

NORTH CAROLINA

Appalachian State Teachers College - Boone

John F. Bozard, Dean of Instruction
D. B. Dougherty, Vice-President and Comptroller
W. H. Plemmons, President
James E. Stone, Director of Summer Sessions and Extension

Duke University - Durham

R. A. Bindewald, Assistant to the Dean, Medical School
R. Taylor Cole, Provost
Robert Dickens, Assistant Dean of the University
Stephen C. Harward, Comptroller
G. C. Henricksen, Vice President for Business and Finance
E. H. Hopkins, Vice President for Planning and Institutional Studies
Douglas M. Knight, President
David V. Martin, Coordinator of Institutional Studies

Pfeiffer College - Misenheimer

Walter I. Gibson, Sr., Business Manager
K. D. Holshouser, Registrar
J. Lem Stokes, President
Cameron P. West, Dean of Academic Affairs
Sterling D. Whitley, Dean of Students

NORTH DAKOTA

University of North Dakota- Grand Forks

T. J. Clifford, Vice President for Finance
W. E. Koenker, Academic Vice President
Gerald M. Skogley, Comptroller
George Starcher, President

OHIO

Oberlin College - Oberlin

Robert J. Carr, President
Thurston E. Manning, Provost
William A. Richardson, Registrar; Assistant Director of Admissions and Academic Records
Lewis R. Tower, Business Manager
J. Robert Williams, Secretary of the College

Ohio University - Athens

Vernon R. Alden, President
Robert Mahn, Registrar
J. F. Milar, Treasurer
Paul R. O'Brien, Vice President for Business
Thomas S. Smith, Vice President for Academic Affairs

University of Cincinnati - Cincinnati

Ralph C. Bursiek, Senior Vice President and Dean of University Administration
William L. Carter, Assistant Dean of Faculties and Officer of Institutional Research
Hoke S. Greene, Vice President and Dean of Faculties
Robert W. Hoefer, Controller
William F. Jenike, Assistant Dean of University Administration
Walter C. Langsam, President

University of Dayton - Dayton

Austin J. Holian, S.M., Assistant Dean of the University
Francis J. Perko, S.M., Business Manager
Gerald W. Vonder Brink, Comptroller

OKLAHOMA

Oklahoma State Regents for Higher Education - Oklahoma City

E. T. Dunlap, Chancellor

University of Oklahoma - Norman

Horace B. Brown, Vice President for Business and Finance
G. L. Cross, President
John E. Fellows, Dean of Admissions and Registration
Dudgeon Giezentanner, Business Manager
Pete K. McCarter, Academic Vice President
Lloyd Sweargingen, Vice President for Research and Development

OREGON

Lewis and Clark College - Portland

W. L. Goodrich, Assistant Business Manager
Charles Haldors, Business Manager
Freeda O. Hartzfeld, Assistant to the President
Philbrook Heppner, Director of Development
John R. Howard, President
Lewis A. Thayer, Dean of the Faculty
Hester H. Turner, Dean of Students

Oregon State System of Higher Education - Eugene

Roy E. Lieuallen, Chancellor

Portland State College - Portland

Bernard C. Baumgartner, Registrar
James C. Caughlin, Director of Program Analysis
Brock Dixon, Dean of Administration
W. T. Lemman, Director of Business Affairs
J. Malcolm McMinn, Business Manager
Branford P. Millar, President
John M. Swarthout, Dean of the Faculty

University of Portland - Portland

Rev. Joseph E. Kehoe, Financial Vice President
Rev. Thomas G. LaPine, Registrar
Rev. Michael G. O'Brien, Dean of Faculties
Mr. Arnold B. Peterschmidt, Controller
Rev. Paul E. Waldschmidt, President

PENNSYLVANIA

Chatham College - Pittsburgh

Burt E. Ashman, Business Manager
Amelia J. Botsaris, Registrar
Doris Crozier, Special Assistant to the President
Lily Detchen, Director of Evaluation Services

Peggy Donaldson, Director of Admissions
Edward D. Eddy, Jr., President
Hanna Gunderman, Bursar
David Henderson, Executive Dean of the College
Barbara J. Lewis, Dean of Students
Reinald McCrum, Secretary of the College

Gannon College - Erie

Richard L. Herbstritt, Registrar
John Hynes, Business Manager
William N. Latimer, Associate Professor of Accounting
Msgr. Louis H. Lorei, Dean of Humanities and Acting Vice President
Msgr. Wilfrid J. Nash, President

Shippensburg State College - Shippensburg

C. Robert Jacoby, Assistant Business Manager
Willard E. Kerr, Director of Graduate Studies
Gilmore B. Seavers, Administrative Assistant to the President
D. Paul Smay, Dean of Instruction and Acting President

University of Pittsburgh - Pittsburgh

Lawrence Lunardini, Staff Associate, Vice Chancellor for the Health Professions
L. L. Monnett, Jr., Assistant Chancellor - Business Affairs
Edison Montgomery, Assistant Chancellor - Planning; Acting Vice Chancellor - The Health Professions
C. H. Peake, Vice Chancellor - The Academic Disciplines
Leslie W. Ross, Staff Associate, Planning and Policy Coordination
R. V. Woodruff, Budget Director
A. C. Van Dusen, Vice Chancellor - The Professions
Carl Wedekind, Director of Educational Planning

RHODE ISLAND

University of Rhode Island - Kingston

Edwin F. Hallenbeck, Director of Institutional Research
Ernest W. Hartung, Vice President for Academic Affairs and Provost
Francis H. Horn, President
Thornton N. McClure, Vice President for Business Affairs
Norman McCullough, Budget Officer

SOUTH CAROLINA

University of South Carolina - Columbia

H. Brunton, Associate Dean of Administration
B. Daetwyler, Comptroller
T. B. Faris, Director of Planning
R. Godfrey, Director of Admissions and Registration
M. D. Tavenner, Director of Institutional Studies and Research

SOUTH DAKOTA

General Beadle State Teachers College - Madison

Laurence S. Flaum, President

State University of South Dakota - Vermillion

Van C. Johnson, Dean of Students
Fred E. Muhmel, Business Manager and Comptroller
Kenneth Raschke, Administrative Assistant to the President
I. D. Weeks, President

TENNESSEE

George Peabody College for Teachers - Nashville

James Colmey, Director, Center for Higher Education
Martin B. Garrison, Dean of the Undergraduate College
E. Bruce Heilman, Administrative Vice President
William C. Jones, Dean of Admissions and Continuing Education
Mary McNulty, Acting Bursar
Felix C. Robb, President

University of Tennessee - Knoxville

Andrew D. Holt, President
Joseph Johnson, Executive Assistant to the President
James Montgomery, Director of Institutional Research
W. H. Read, Vice President for Finance

TEXAS

Christian Education Commission, Baptist General Convention of Texas - Dallas

Edward N. Jones, Secretary

Rice University

Carey Croneis, Chancellor (and Professor of Geology)
Martin Graham, Professor of Electrical Engineering and Computer Project Director
M. V. McEnany, Registrar
H. R. Pitman, Chief Accountant
Kenneth S. Pitzer, President (and Professor of Chemistry)
J. R. Sims, Campus Business Manager (and Professor of Civil Engineering

Southern Methodist University - Dallas

William L. Ayers, Vice President and Provost
Douglas Connor, Registrar
Lanny Folsom, Chief Accountant
Mrs. Howard Grimes, Research Assistant to the President
Jesse E. Hobson, Vice President for Coordinated Planning
A. J. Osborne, Business Manager
Trent C. Root, Vice President and Treasurer
Frank Seay, Assistant Vice President
Willis M. Tate, President
Robert M. Trent, Director of Libraries

Temple Junior College - Temple

Hubert M. Dawson, President and Business Manager
Johnny S. Payne, Dean and Registrar

Texas Commission on Higher Education - Austin

Lester Harrel, Director

University of Texas - Austin

James Colvin, Business Manager
Lanier Cox, Vice Chancellor for Administrative Service
J. C. Dolley, Vice Chancellor for Fiscal Affairs
Norman Hackerman, Vice Chancellor for Academic Affairs
L. D. Haskew, Vice Chancellor
Graves Landrum, Assistant to the Chancellor
Harry Ransom, Chancellor
Byron Shipp, Registrar

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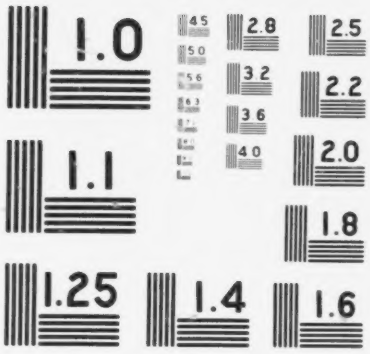
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963

UTAH

University of Utah - Salt Lake City

Jack H. Adamson, Academic Vice President
Carl J. Christensen, Coordinator of Research
Paul W. Hodson, Vice President, Business
Gordon J. Miller, Controller
Mark L. Money, Assistant to the Vice President for Business
A. Ray Olpin, President
Dilworth Walker, Director of Institutional Studies

Utah Coordinating Council of Higher Education - Salt Lake City

Arthur D. Browne, Director
E. A. Jacobson, Assistant to the Director

VERMONT

Bennington College - Bennington

William C. Fels, President
Harry W. Pearson, Dean of the Faculty
Stanley Pike, Jr., Business Manager
Wallace P. Scott, Dean of Studies
Edith Stewart, Assistant to the President and Dean of Faculty for Academic Affairs

Johnson State College - Johnson

Ronald F. Darin, Business Manager
Odino A. Martinetti, President
William D. May, Dean of the College

University of Vermont - Burlington

Edwin B. Abbott, Auditor
Harold S. Clarke, Registrar
Melvin A. Dyson, Comptroller and Business Manager
John F. Fey, President
Robert K. White, Administrative Assistant for Institutional Research

Vermont State Colleges - Burlington

John T. Bankus, Finance Officer

VIRGINIA

University of Virginia - Charlottesville

Francis L. Berkley, Jr., Executive Assistant to the President
James R. Connor, Director, Institutional Analysis
Weldon Cooper, Administrative Assistant to the President
Kenneth Crispell, Acting Dean, Medical School
Robert J. Harris, Dean, Faculty of Arts and Sciences
J. Robert Henderson, Assistant to the Comptroller and Internal Auditor
David B. Moyer, Bursar
Vincent Shea, Comptroller
John M. Stacey, Director, Teaching Hospital

Virginia Military Institute - Lexington

Allan Carlsson, Registrar
Brig. Gen. Lloyd J. Davidson, Dean of the Faculty
Col. J. C. Hanes, Business Executive Officer
Lt. Col. R. M. Harper, Treasurer
Lt. Col. Sidney Matthews, Librarian
Maj. Gen. George R. E. Shell, Superintendent

Virginia State Council on Higher Education - Richmond

James W. Bailey, Assistant Director
John L. Green, Assistant Director
William H. McFarlane, Executive Director

WASHINGTON

Eastern Washington State College - Cheney

William H. Drummond, President of Faculty
Fred S. Johns, Comptroller
George J. Kabat, Dean of Instruction
Don S. Patterson, President
Robert B. Smawley, Director - Institutional Research
Vincent L. Stevens, Chairman, Faculty Senate

Washington State University - Pullman

Clarence H. Bagley, Coordinator of Testing and Research
C. Clement French, President
Carl A. Pettibone, Business Manager
G. Donald Smith, Director of Libraries
S. Town Stephenson, Dean of the Faculty

WEST VIRGINIA

Potomac State College - Keyser

Todd Bullard, Dean and Registrar
E. E. Church, President
John Raschella, Business Manager

West Virginia University - Morgantown

John F. Golay, Provost and Dean of the Graduate School
Stanley O. Ikenberry, Assistant to the Provost for Institutional Research
Louise Keener, Comptroller and Director of Business Affairs
William McMillian, Chief Accountant
Paul A. Miller, President
Robert F. Munn, Director of Libraries

WISCONSIN

University of Wisconsin - Madison

Byron Bloomfield, University Facilities Research Center
R. L. Clodius, Vice President for Academic Affairs
Edward Korkan, Assistant Vice President and Comptroller
Wayne Kuckkahn, Registrar and Director of Admissions
Wallace Lemon, Assistant to the Vice President for Academic Affairs

Wisconsin Board of Regents of State Colleges - Madison

Eugene R. McPhee, Director

Wisconsin State College at Whitewater - Whitewater

Dale Brock, Vice President for Financial Affairs
Richard Brown, Academic Vice President
Gordon W. Riley, Business Manager
Walker D. Wyman, President

WYOMING

University of Wyoming - Laramie

John C. Bellamy, Director of Research, College of Engineering
E. G. Hays, Director, Division of Finance and Budget
G. D. Humphrey, President
Archie Johnson, University Statistician
L. G. Meeboer, Executive Assistant for Business and Plant Affairs
James Ranz, Dean of Academic Affairs

APPENDIX J

INTERVIEW GUIDE USED AND COMPLETED DURING INSTITUTIONAL VISITATIONS

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Name of Institution:

Control:

Classification:

Number of Students:

Persons Interviewed

Name **Title**

Primary Contact:

Others:

Interview with President or Other Top Administrative Officer

If organizational chart is not at hand, obtain basic information: major divisions of administrative responsibility, positions that report directly to President.

Explore with President the kinds of financial and related data he receives, how he uses, who produces and interprets it, what decisions are delegated and to whom:

Staffing - needs for positions, etc.
Budget-making and amending
Course offering decisions
Class-size, teaching or faculty load policies,
  salary analyses
Amount, degree of student services, etc.

Further explore kinds of information that President feels would be useful that are not now available: (1) for intrainstitutional comparisons, (2) for historical trend analysis, (3) for comparison with other institutions. To be used for (a) allocation of resources within institution, (b) projection of future needs - both immediate and distant, (c) presentation and justification to board, legislature, donors, (d) internal reorganization for maximum or optimum utilization of manpower and dollars.

Does institution collect, compute, or compile any of the following? Where are available the definitions, techniques, procedures, forms, ground rules? How is the data used for decision-making and by whom?

Cost per student, SCH, course, etc.
Faculty-student ratio
Faculty load studies - time distribution
Student load determinations
Class-size data
Salary data
Space utilization
Cost analyses

Continuing basis, periodic, sporadic, special? Tied in with accounting system, accuracy controls? EDP used?

What comparative studies (comparing itself with other institutions of higher learning in any regard) has the institution made? What sources of information now?

Students Registered

The unit of counting at this point is a student who is being admitted to study in one or more classes for a specified term.

At what point in the term?
For which terms?
Is the count classified by (define each):
    Campus or off-campus center or extension?
    Student classification?
    Student's field of study or curriculum?
    Full-time and one or more part-time categories?
Are graduate students doing work on thesis research only counted?
To whom is registration count available?
Is the count so coordinated with:
    Course enrollments that a control over these is made readily available?
    Student fees so as to provide a fee distribution in the same categories and at the same point in time as the registration count?
Is there any count which combines registrations for more than one term and how is this counted?

Course Enrollments

A student admitted to one course for a specified term. It may imply one or more types of class organization for each course, or each class organization may be treated as a separate course.

Is this count taken as of the same point in the term as the registration count?
For which terms?
Is this count classified by the same categories indicated above?
If not, what differences and why?
Is the classification used above available for each course and type of class?
Is there any classification of courses, such as by course level, by purpose of course (service vs. specialization, etc.) or by method in which the course is taught?
Rationale for each?
Are student credit hours the measure by which the student's effort in any course or class is recognized?
How is student credit hour (or other unit) defined?
By whom?
How is student credit hour value determined for any course (especially when more than one type of class organization is involved)?
How is student credit hour value determined for individual instruction?
For graduate research and dissertation?
For off-campus or experience activities?
Does institution use measure of student load or student progress other than "credit hour"? Describe.
Are part-time students in any way reflected as full-time equivalents?

Are any of the above measures used as workload indices?
To whom are figures reported?
What uses are made, internally and externally?
Related to what management decisions?
How are registrations and/or enrollments projected?

Student Fees

What fees and charges go to general fund, lose identity, become available for general purposes?

What fees and charges are dedicated to certain purposes, functions, organizations, units, are segregated or restricted?
Auxiliaries?
Building fees?
Student activity fees?
Health Service?
Why?

Are fees accrued in formal way in the accounts?
Or just cash basis?
Are "unearned fees" deferred to subsequent period?

Does institution waive fees?
In-state, out-of-state?
For graduate students, athletes, graduate assistants, employees?
Are fee waivers considered in same light as scholarships or student aid?
Reported in any way?
Are waivers of fees recorded in accounts or simply netted out, whether on accrual or cash basis?
Does institution know value of fees waived?
Would it be desirable to know this?

How are fee levels established?
By whom?
Who has final authority?
What policy, rationale, comparison, etc., determines level of fees?
What kind of data or measures or comparisons would be desirable for making decision as to fees to be charged (e.g., % of average cost per student, comparison with fees or % of other institutions)?

Is the amount of the fee related to the classification (level, curriculum, etc.) of the student?
This question ever studied?

Faculty and Staff

What are the major classifications of personnel?
Who are included in teaching-research faculty?
Graduate assistants?
What about administrative officers that teach a course?
How do you define FTE faculty member?
Do you have a position count or position control?
Is such data tied in with accounting system for control of accuracy, completeness?

What faculty salary data does institution compile?
What is the contract period or periods of employment?
How do you define it?
How do you relate your contract period to published salary data? (Obtain standard contract form.)
Has institution compared salaries of faculty or other types of positions with other institutions?
Comparison of average salary by rank, ranges by rank, what data used? (Obtain copy.)
How are part-time faculty treated?
Was data material to decisions made?
What might be most significant salary figures for comparison?
Mean, range, top salaries, etc.?
Should salary data compilations be divided by areas: physical sciences, social sciences, humanities?

Is there any formal faculty "pay plan" or salary schedule?
Are the usual 4 ranks utilized?
Are there other ranks or position designations for faculty, e.g., lecturer?
How treated in salary compilations?
Are assistant deans, associate deans, directors, etc., included at their equivalent ranks or are they treated separately?

How are contributed services (Catholic institutions, ROTC, medical faculty, etc.) treated?
What fringe benefits are granted to faculty? (List any unusual items.)
How are benefits charged in the accounting system--to a separate account or allocated to departments?
How do or how could benefit dollars follow salary dollars throughout the institution?
Would this be desirable?
What about treatment of benefits paid for outside of institution, e.g., participation in state retirement and/or OASI, with state furnishing employer's contribution?
How difficult to obtain and record value of this?
Are there any payments in kind?
How accounted for?
How should fringe benefits be treated in interinstitutional salary studies?

Is annual leave accrued and carried forward?
How treated in the accounts if earned one year and taken another?
Sabbatical leave ever granted?
What is policy?
How is cost of sabbaticals reflected?

How does institution measure faculty assignment, teaching assignment?
Is there a policy on what is expected?
How is "load" defined, what is included?
Is there a faculty service report completed by the individual faculty member? (Obtain copy, including instructions and ground rules.)
Who determines amount of time or proportion of time allocated to various activities and courses on the report?
Faculty member, department head, budget document, or otherwise?

Has institution made any load studies?
Continuing basis, periodic, sporadic?
How is the data used in decision-making and by whom?
Do officers of the institution feel that comparative load studies between institutions would be valuable?

How are needs for non-academic staff in instructional departments determined?
Ratio to faculty?

Medical schools. Do above answers apply to medical school faculty and staff? If not, specify.

Are there any indices for supplies and expense in the instructional departments?
Cost per SCH?

How are equipment needs determined, funds allotted?
Any statistical relationships here?

Curriculum

Does the institution have any policies on minimum, maximum, optimum class sizes?
Vary by departments?
Vary by method of instruction, type of class, single course, etc.?
Data on average class size?
Weighted or unweighted?
If a record is obtained of the number of "small classes," how is that term defined?
Who in the institution is concerned with this kind of data or makes use of it?
Are student-teacher ratio data used? How?

What are policies on creation of new or additional courses?
Who makes decision? How?

Any data on number of courses offered, number taught; historical trend?
Is there policy on discontinuance of course offerings?
Criteria?
Would comparative data on simply the number of different courses (by "subject matter") offered at various institutions be valuable for administration of a college or university?
What about % of courses in the catalog actually taught in a given year as a further item of comparative information?

Does institution formally classify classes by type or method of instruction such as lecture, lecture-discussion, seminar, laboratory, etc.?
Would some such classification be important for comparisons of class-size data?
Any data reflecting these categories?

How does institution classify courses, e.g., by level--100, 200, 300, 400?
Are these meaningful categories?
Do institution's policies recognize distinctions, e.g., provide for lower class size at upper levels, lighter teaching loads in hours for those instructing at higher levels, etc.?

Are there any unusual developments or new approaches to teaching that must be taken into account in our attempts to measure application of resources to the student--ETV, radio courses, individual study, teaching machines, living-learning dorms, etc.?
If yes, explore.

What is term of classes (semester, quarter, trimester, etc.)?
How many actual weeks of classes in term?
What is length of class period?
What units might be used in measuring relative cost of instruction interinstitutionally: class hour, credit hour, contact clock hour, confex hour, other?

Explore reaction to a curricular approach--desirability, feasibility. How does institution classify its curricula?
Are all students identified by curriculum in current records?

What instruction is carried on by extension?
How reflected in financial statements?
What kind of data most useful to management?
What are institution's criteria for determining what courses shall be offered, or what institutes, short courses, etc.?

Do we need to eliminate term extension from account classifications and describe activities more specifically--e.g., off-campus classes for credit, correspondence instruction, instruction at adult centers, etc.?

Extension (Non-Credit)

What are the major varieties of non-credit extension activities carried on?
What kinds of reports, figures, workload data developed?
How used?
How are needs evaluated?
Number of personnel determined?

Agricultural Extension and Home Demonstration Extension.
Any special measures or analyses here?
How do you classify personnel?
Compare salaries?
Any of professional people (including county agents) considered faculty for salary determination or comparison?

Research

Is it possible to measure separately the effort, resources applied to instruction vs. research?
Do you attempt to do so?
Is it important to the administration to know the relative effort applied to each, the historical trend, the comparable ratios at other institutions?
What specific data would be most valuable for this purpose?
What differentiation, if any, is made or should be made between "sponsored" research, "departmental" research, "organized unit" research, "separately budgeted" research, etc.?
How define?

What are factors considered in decision to seek or accept any research grant or contract?
What kind of information or data is now formally required?
What kind would be desirable if obtainable?
Who makes decision?
Any ever refused?
For what reasons?

How are "sponsored research" funds accounted for (identify in financial statement)?
Is income recognized only as expended?

How are overhead or indirect cost allotments included in grants and donations actually used by the institution?
Are these amounts separately identified in the records?
Are they transferred to General Fund?

Does institution differentiate between those grants and/or contracts that are for research and those that directly support or enrich the instructional program, pay for teaching time?

How reflect training grants?
What about "institutional" grants?

How is faculty time spent on sponsored research accounted for?
Is such time a part of faculty member's "regular load" or is it considered "overtime" or "in addition to regular duties" for additional compensation from grant funds?
Any policy formulation on this?
Or is faculty member's time spent on project simply charged to grant without additional compensation to him during academic year?
During summer session?

How should comparative data on research dollars volume be developed?
Funds received?
Funds expended?
Grants and contracts in force?
Dollars related to graduate students?

Does institution have separate research corporation or foundation?
How related to institution?
How are finances reported?
Is there a basic differentiation between sponsored research and the bulk of the remainder of the Educational and General function?
Are there separate budgets?
If so, how and why did the separation arise?

Should Sponsored Research be separated from Educational and General in financial statements?
Perhaps treat as Enterprise?

Library, Museum, ETV, Audio-Visual, Etc. (Learning Resources)

Are libraries, ETV, educational films, museums, etc., grouped and classified together for purposes of administration, financing, or accounting?
If any or all of these are combined for these purposes, what is basic rationale for this?

Where does library, if separate, lie in institution's organizational and administrative scheme?
ETV?
Educational films?
Museums?
Is library operation highly centralized or decentralized by functional or departmental libraries?
Why?
Is this considered the better method?
Where is policy for library and/or other learning resources made?

What analytical studies are made in arriving at policies for library support and operations?
Are any studies conducted that relate the library to degree of use, size of student body, faculty, curriculum (fields of study) offered, or amount of research being carried on in institution?

Are library costs allocated and charged to departments on estimated use?
Have any studies been conducted to help determine policies for acquisition, circulation, cataloguing, etc., of library?

Does library use any kind of work load measures in determining cost of library operation?
Circulation-reference, acquisition-cataloguing?
What personnel policies affect cost of the library operations?

Are new measures of faculty and student load and costs being used with ETV instruction?
How are instructional costs arrived at?
Plant operations? Etc.?
How are extension courses taught with ETV analyzed?

In accounting for library, museum and other learning resources, how are new additions (gifts, donations, acquisitions) treated?
What changes have ETV, teaching machines, etc. wrought with regard to teaching assignments, class size, teaching loads, etc.?

"Organized Activities Related to Instruction"

What activities does institution so classify, and why?
Is this classification essential?
Could they be usefully considered and treated as auxiliaries, or at least as enterprises with a "net educational cost"?

Teaching Hospitals. How does institution analyze this area?
What staffing measures?
Any unit cost determinations?
How defined?
How is data used?
Is operation intended to be "self-supporting," or is there an expected "educational cost" element?

General Administration and General Expense

"Student Services" Area. Check to see if financial statement or organizational chart delineates or describes all the activities that might be considered "student services." If not, list them.

Any unit cost figures or special analysis derived for this area?
Any workload data compiled?
How have needs been justified?
Staffing pattern related to numbers of students?

Has growth and demand in this area been special problem to institution?
What data comparing with other institutions might have been or would be valuable in evaluating amount of resources appropriately applied here?
Ratio of professional staff to number of students (warm bodies) enrolled?
Dollars per student?
Should Student Services be a separate major category of expenditure?
Can this "function" be defined, identified, separated from other administrative activities?

How is student health service classified in the accounts?
Is it part of Educational and General or treated as Auxiliary?
Why?

Plant Operation and Maintenance

What workload measures used in this area of operations?
E.g., how determine number of janitors, groundsmen?
Any cost analyses--e.g., cost to maintain certain floor area, cost per acre ground care, etc.?

Auxiliaries

Has institution adopted concept that housing, food service, bookstore, etc., should be generally separately self-supporting?
Are auxiliaries accounted for as "enterprises"?
To what extent are such enterprises charged for rent, utilities, bookkeeping, central administrative services?
Are buildings, equipment depreciated?
Is depreciation separately funded?
How is debt service accounted for?
What disposition is made of profits--do they continue to "belong" to the enterprise or are they considered available for general use of the institution?

Are there problems of separating "educational" from "auxiliary" functions (e.g., use of counselors in dormitories)?
Does institution have now or consider for future any variation of the "living-learning dormitory," the "residential college" or other arrangement with commingling of instructional and residential space and/or personnel?

Can there be consensus as to essential (educational) vs. auxiliary functions?

Budget Procedures

How is budget built internally, and by whom?
Are general policies laid down, predetermined? E.g., salary policy, new positions, etc.
What criteria used in accepting requests of department heads, deans, how justified?
On what basis are new positions allotted?
Is there any regular or routine review of vacant positions at any time, with possibility of abolishing position or transferring it?
How is budget execution and control effected?
What are the basic units in the organization to which budgetary control is applied?
What individuals have responsibility for control of the budgets of basic units?
Do individuals clearly have responsibility for units budgeted?
What data is furnished to that responsible individual and how often?
What might be desirable that is not furnished?
How is the central accounting aspect of budget control implemented--e.g., requisition comes in that is "over budget"--what happens?
What are the budget categories for the basic units--e.g., personnel service, supplies and expense, and equipment vs. lump sum?
What flexibility does department head have in using total budget sum--can he transfer between categories?

Extra-institutional Relations

Does the state, city, county, federal government or other sponsoring agencies require that accounts be kept in certain way?
If so, what are these requirements?
Are these statutorily or administratively determined?
Does institution have voice in determination of the particulars?
What financial reports are required?
Or does a governmental or other sponsoring agency itself keep the sole accounts?

What is form of the request for appropriations? (Obtain copy.)
Is format rigid (determined outside the institution) or flexible?
What supplemental information is provided, especially what workload data, other quantification, relation of program to dollars?
Are all sources of financing considered in the perspective presented?

What kind of data would be valuable to the institution in presenting its request?
What kinds of data have the authorities requested, or indicated would be desirable, that have not been available?

How detailed is the appropriation to the institution--lump sum or many items?
What transfers between items possible?
Are building appropriations separate always?

For institutions that participated in 60-College Study (or other small private colleges that are likely to have used published results of the study):

Has comparative data from 60-College Study been used in any way in the administration of the institution?
If so, in what way, specifically?
What decisions?
Did participation influence the accounting system, account classifications?
Does institution use the 60-College accounts and definitions today?

Inter-institutional Cooperation

Does institution use any facilities financed jointly with other institutions?
What is formula or agreement for distribution of expenses to participants?
Any financial statements or other data prepared which reflect totally the joint activity?
How does institution reflect this in its own accounts or reports?

Year-round Operation

Has institution moved toward year-round operation or given consideration to doing so?
To what extent have "lower costs per student" expectations entered into deliberations?
Any cost projections or other data utilized?

Unusual Activities

Explore financial statements, organizational charts, catalogue, for any unusual activity carried on by this institution. Also question institution staff on this point.

Accounting Considerations

Classification of Accounts

Obtain detailed classification of accounts--balance sheet and operating. Be certain that the following is available:

What categories of expenditures are used that cut across fund, function, activity, department classifications--e.g., personnel services, supplies and expense, equipment?
Any sub-categories within this kind of classification--e.g., faculty salaries, clerical and supporting salaries, graduate assistants, student assistants, etc.; objects of supplies or expense? Obtain definitions, if available.
Applicable to just E & G, or to other segments of the operation?

Distribution of Utilities and Other Charges

Are the following charged to the "using department" or are they charged to and left in separate classification undistributed?

Telephone
Utilities
Janitorial
Rental of non-university space
Space renovation, remodelling
Travel
Staff benefits
Other

Miscellaneous Income, or Credits to Expenditure

Are any items of receipt treated as refunds of expenditures? (Itemize.)
Under what policy or rationale are they so treated? (E.g., possibilities: departmental sales of supplies, materials, products, services; transcript fees; purchase of faculty time by industry or other outside organization; governmental financing of demonstration schools.)
How budgeted?

Endowment Income

To what extent is endowment income credited to the current fund?

Classification of Activities (Problem Areas)

How are the following activities classified--current general, current restricted, or agency fund; educational and general or auxiliary?

What is rationale for treatment?

- Alumni association, office, club, activities
- Information Bureau
- Student activities (e.g., newspaper, yearbook, band, student government, dramatics, class activities)
- Health service, infirmary
- Supply and service shops and departments that charge for services and/or materials:
    - Supply store
    - Printing and duplicating
    - Stenographic pool
    - Computer center
    - Maintenance shops
    - Motor pool
    - Data processing
    - "Working Capital Funds"
- Demonstration school
- Intercollegiate athletics
- Dairy, creamery, farm (in connection with College of Agriculture)
- Audio-visual service
- Housing supervision
- University press
- Public school testing

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APPENDIX K

LETTER INVITING INSTITUTIONS TO PARTICIPATE IN INSTITUTIONAL EVALUATION OF PRELIMINARY REPORT

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March 26, 1965

Dr. James S. Coles
President
Bowdoin College
Brunswick, Maine

Dear President Coles:

Last year Bowdoin College participated as one of the 110 colleges and universities which served as institutional samples in the opening phases of this project. In addition to furnishing us with materials, you were visited in January by myself. During this visitation, I spent some time talking to you and to other members of the institutional staff.

This study has now progressed to the point where we will shortly be completing a rough draft of our final report, including a suggested procedure for financial analysis which might be used by colleges and universities in the United States. An actual detailed field trial of this procedure would certainly be desirable. Such a trial, however, is beyond the capabilities of this particular project which is scheduled to end on September 30 of this year. A new project proposal which would be concerned with an extensive field testing has been submitted to the Cooperative Research Branch of the U.S. Office of Education as a follow-up project to this one.

We do feel, however, that this procedure would benefit greatly through an evaluation of its applicability and usability by a selected group of institutions of higher learning in the United States. Such an institutional evaluation has been included as a part of this project, and a description of exactly what it would involve, both on the part of the institution and of this office, is attached to this letter.

We would very much like to have Bowdoin College further serve as one of the seven evaluating institutions. The fact that you may or may not have carried on analyses of this type in the past or have persons on your staff who are familiar with such analyses is not important, since this procedure is not designed solely for institutions with a history of sophisticated analytic experience. I would like to stress that we are not asking you to actually make any sort of analysis. Rather, we are proposing a sort of "dry run" of the procedure by having it studied and interpreted by representative persons within the institution who might be expected to bear that responsibility if an actual analysis were to be performed. Should you like to participate further in this study in the capacity of an evaluating institution, please let me know. We would forward to you the necessary materials, including the rough draft of the final report and of any forms that may be suggested therein, by the end of April. We would expect to have our staff member visit your institution during the latter half of the month of May.

If you have any questions concerning this matter, please let me know and I shall be happy to answer them. I certainly hope that you will be able to help us further in this matter and sincerely appreciate all of the assistance you have given previously.

Sincerely yours,

John E. Swanson

JES:mpk

Enclosure

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APPENDIX L

PROCEDURES FOR EVALUATION OF PRELIMINARY REPORT BY INSTITUTIONS AND LIST OF INSTITUTIONS SERVING AS EVALUATION SAMPLE

UNIVERSITIES STUDY PROJECT
PROCEDURES FOR EVALUATION OF PRELIMINARY REPORT BY INSTITUTIONS

1. Seven institutions of varying types and missions would be chosen to review the project procedure developed by the project staff. Each of these institutions would receive copies of the tentative procedure when completed, including all directions and definitions for carrying out the analysis and sample reports of the type of final information which this analysis might be expected to produce. Each of these institutions would be asked to submit samples of the various data-gathering instruments and procedural forms to the persons in that institution who might be expected to be responsible for interpreting those forms and gathering such data if an actual analysis were to be made. The reports simulating the type of data that might be expected to be produced by such an analysis would be submitted to the various administrative officers of the institution who would be expected to make use of that data in that institution. This means that the procedure would not merely be looked at by the institution in general but actually studied by the persons in the institution who would be expected to deal with that particular portion of it. This would include the president, the chief financial officer, the chief academic officer, the institutional research officer, the registrar, the chief accounting officer, and various deans, department heads, and individual faculty members.

2. Each institution would be given at least two weeks to study and assess the procedure as submitted to them. At the end of that time the staff members of the project would visit the seven institutions. A staff member would spend as much time as necessary at each of the institutions talking with each person who had reviewed the procedure or any part of it and get from that person his reactions as to the understandability, usefulness, and workability in his situation of the portion of the procedure for which he had been responsible.

3. These reactions from the institutions would then be used as a further basis for revision of the proposals made by the study staff before the production of the final report.

LIST OF INSTITUTIONS SERVING AS EVALUATION SAMPLE

1. **The University of California, Berkeley, California**
2. **University of Missouri, Columbia, Missouri**
3. **Boston University, Boston, Massachusetts**
4. **Wayne State University, Detroit, Michigan**
5. **The State College of Iowa, Cedar Falls, Iowa**
6. **Bowdoin College, Brunswick, Maine**
7. **Miami-Dade Junior College, Miami, Florida**

APPENDIX M

LETTER TO INSTITUTIONS IN EVALUATION SAMPLE ARRANGING FOR PROJECT STAFF VISITATIONS

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May 4, 1965

Dr. James S. Coles
President
Bowdoin College
Brunswick, Maine

Dear President Coles:

Thank you very much for your letter of April 6. We are extremely pleased that you will be willing to cooperate with us in evaluating the procedure which we are developing in this project. Under separate cover we are sending you three copies of a tentative draft of the report entitled "Financial Analysis of Current Operations of Colleges and Universities." Please realize that this is a rough draft and is concerned mainly with the procedure for analysis which we have attempted to develop here. It is not the final report and thus does not contain certain historical sections and bibliographical sections which would appear in that document.

I also wish to apologize for the rather forbidding size of the document which we are sending to you. Unfortunately, meaningful analysis of the operations of institutions of higher learning in the United States is an extremely complex subject. To deal with it in any valid fashion calls for a complex compilation and analysis of data. To think that this can be simplified without a distortion which would seriously impair the usefulness of the final product would have to be classified, I am afraid, as "wishful thinking." In the case of less complex institutions, however, it will be seen that only a portion of the procedure would apply to the institution and thus the task would be considerably simplified.

In my previous letter I summarized what we hoped would result from your review of this document. Briefly, we would like you to place it in the hands of the person or persons who, in your institution, would bear a major responsibility for carrying out such an analysis if it were to be performed. Likewise, we would hope that it would be reviewed by persons who would bear a major responsibility for the interpretation of the results of such an analysis. These groups would probably include the president or a representative of his office, the chief academic officer, the chief business officer, an institutional research officer if such exists, and any other persons who you would think would have an interest. We are sending three copies in order that this distribution may be simplified for you.

In reviewing the document we would hope that each of the persons would keep four major points in mind:

1. An evaluation of the usefulness of the results developed through this procedure in the administration of the institution.
2. The evaluation of whether or not the procedure adequately accounts for all of the different operations of your institution. By this we are raising the question as to whether or not it "fits" all sizes and shapes of institutions.
3. An evaluation of the practicality of undertaking an analysis of this magnitude in your particular institution. Could it be done, and would the results be worth the trouble necessary to do it?
4. An evaluation of the document, including the conceptual framework upon which it rests, in the light of your own professional knowledge.

As I further indicated in my earlier letter, we would like to have a member of the project staff visit with you and talk with each of the persons in your institution who reviewed the document to get a reaction to it. I will be making this visitation to your institution. I visited you a year ago when we were making our survey of our 110 institutional samples, so I already have had considerable contact with Bowdoin College. It is our belief that two days should be sufficient time to complete our business during this visitation. We have tentatively set aside the dates of June 7-8 to visit Bowdoin College. If these tentative dates are not satisfactory to you, please call me collect in Ann Arbor (Area Code 313 - 764-9492) and we will attempt to work out dates which are more to your convenience.

Thank you again for the help which you are giving to us. We are looking forward to visiting with you and getting you reactions to the work which we have completed thus far.

Sincerely yours,

John E. Swanson

JES:mpk

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PART II

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OPERATING MANUAL FOR THE FINANCIAL ANALYSIS OF CURRENT OPERATIONS OF COLLEGES AND UNIVERSITIES

Introduction

This manual is designed for use by the analyst in applying the analytic procedure developed in the Financial Analysis of Current Operations of Colleges and Universities Study. It is presumed that the analyst using this manual will have some familiarity with the major body of the study. Its major purpose is to bring together in one document the steps necessary to be taken in order to apply the procedure developed within that study. This involves the shaping of the basic body of institutional financial data into the form necessary to apply the analytic procedure, the identification of the various environmental units within the institution, and, most important of all, the steps necessary to attach to or identify with those units the various items of analytic data necessary to produce the various report formats which are recommended in the basic work.

Definitions of terms used in this manual are found in the Glossary which is an integral part of the basic Financial Analysis of Current Operations of Colleges and Universities document.

Basic Body of Financial Data

The basic body of financial data of an institution should rest upon the accounting system prescribed in Volumes I and II of College and University Business Administration, published by the American Council on Education. These principles, however, include significant options or permissible variations and alternatives of consequence that make possible quite diverse reflections of the financial operations of an institution when attempts are made to compare data between two or more institutions. Thus, it has been necessary to lay down certain "ground rules" which represent choices from a number of alternatives permitted by the basic accounting manual. It should be emphasized that the choices made and principles selected here are requirements for comparable results from this analytic procedure only and are not intended as a critique of generally-accepted accounting procedures in colleges and universities.

1. Income is to be recognized as it is earned; expense is to be recognized as it is incurred. The earning of income takes place as the stated or implied conditions attached to the payment (or the obligation to pay) are fulfilled. Incurring of expense takes place as the material or service is consumed or utilized.

a. All income collected but unearned at the end of each fiscal period should be deferred to the subsequent fiscal period or periods in which it is expected to be earned. Such amounts should be credited to deferred income accounts and reflected as liabilities.

b. Income which has been earned but not collected at the end of each fiscal period should be accrued and reflected as income of the period in which earned.

c. Expenses which have been prepaid but not consumed or expired at the end of the fiscal period should be deferred and charged to asset accounts.

d. The expenses that have been incurred during the fiscal period but which have not been paid for should be accrued and charged to that period.

e. Any and all transfers to plant funds from current funds and any and all disbursements (or obligations to disburse) from current funds for the purchase of fixed assets (whether additional or replacement) should be segregated under a single classification quite definitely removed from all other current fund transactions and presented as the last item in current fund operating statements for analysis and comparison. This would include transfers to plant funds which represent the funding of calculated depreciation expense, as well as any other provisions for renewal and replacement where either the cash or other current assets are actually transferred or designated for these plant purposes.

2. In the delineation of the conceptual and fiscal boundaries of the institution, the basic rule is one of inclusiveness, with description of the total operating entity as the goal. For example, the following should be accounted for under this rule as within and as a part of the institution:

a. Separately incorporated research foundation that operates exclusively for, through, and because of the institution, or is closely associated and identified with the institution.

b. Intercollegiate athletic association separately incorporated, or with its own autonomous governing body, or "run by" or "belonging to" the students.

c. Separate campus or geographically separate health center or other major division or separate extension activity, provided in each instance that it is an administrative responsibility of the chief officer of the institution.

d. Funds "from private sources" used at the personal discretion of an officer of the institution, e.g., president, athletic director, coach.

3. The recognition of constructive income and expenditures as an integral part of the operation of the institution. This analysis requires that the following situations be evaluated in dollar amounts and included in current operating income and expense:

a. State makes employer's social security contributions for all university employees from special tax sources.

b. State makes periodic contributions to funded retirement plan, matching university employee's payments.

c. State provides unfunded retirement plan or benefits.

d. Members of religious orders contribute their services full-time and part-time as professionals or nonprofessionals to the institution.

e. Oil magnate donates in kind all fuel consumed by the institution.

f. Scholarships are made available by a corporation, an individual, or governmental agency specifically for students to attend the institution, although the funds are not actually handled by the institution.

g. Faculty salary supplements are paid directly to faculty members by outside benefactors.

h. County pays portion of county agricultural agent's salary directly to him.

In the following instances the ground rules require that the value or cost of service rendered be excluded and remain excluded from the body of income and expense:

a. State provides (and requires) central disbursing of monies, all checks for institution drawn against funds in state treasury.

b. State provides central purchasing service.

c. State provides civil service or merit system personnel services.

d. Alumni volunteers spend thousands of man-hours in fund-raising for their alma mater.

e. Members of the medical profession in the local area contribute occasional (no more than a few hours per year for any one member) teaching services to the medical school or hospital of the institution.

f. Scholarships are granted to individual students by a corporation, an individual, or governmental agency with the students attending the institution of their choice.

g. State-wide body serves as governing board or as coordinating council for several institutions and is separately financed by the state.

h. ROTC instructors are military officers paid by the federal government.

4. Any income available to the institution for general current purposes shall be reported as general current fund income, regardless of any subsequent use, designation, or disposition for non-current purposes. Such subsequent use, designation, or disposition for non-current purposes shall be reflected as transfers from current funds to the appropriate non-current fund groups. In order for income to be reflected directly to a non-current fund, the designation or restriction must arise from outside the institution. The governing board is here considered as being within, or a part of, the institution.

5. All transfers to or from current funds should be reflected in the operating statements, separately identified therein; only those transactions which are corrections of prior year operating statements would then qualify as appropriate direct charges or credit surplus accounts. This would not prohibit, however, transfers between Unappropriated Surplus and Surplus Reserves, which are simply changes between subdivisions of the total surplus.

6. Where the fiscal year established in an institution bifurcates an instructional term (most often a summer session or third trimester split by a June 30 fiscal closing), this procedure does not require the change of an institution's fiscal year but rather requires the merging of certain financial data from the two fiscal years in order to provide complete information concerning the single instructional term.

7. The following types of expenses should be charged to the lowest level of organization with which they can be identified, that is, to the unit "containing" at the time the individual or

activity utilized or being served by the supply or service or expense item:

- a. Travel
- b. Telephone toll calls
- c. Postage, express, and freight
- d. Professional memberships
- e. Departmental memberships
- f. Subscriptions
- g. Office supplies
- h. Mimeographing
- i. Printing
- j. Stenographic service
- k. Equipment repair
- l. Data processing

All items involved in "the provision and maintenance of indoor and outdoor space, properly conditioned, serviced, and protected" should be charged to Plant Operation and Maintenance accounts, rather than to the space-using departments. This would include specifically, for example:

- a. Utilities
    - 1. Lights and power
    - 2. Water
    - 3. Sewage disposal
    - 4. Garbage disposal
    - 5. Heat
    - 6. Air conditioning
- b. Janitorial service
- c. Building repair, internal and external
- d. Office, classroom, laboratory remodeling
- e. Elevator operation

Specifically excepted from this rule are student and faculty housing, which would bear individually charges of this nature. In the case of such housing, the direct service offered and sold by the institution is "space, properly conditioned, serviced, and protected" and the costs of providing and maintaining that space are the direct costs of the service.

The Functions of the Institution

Once the basic body of financial data of the institution has been identified, the next step is to ascertain which of the basic functions, as classified in this analytic procedure, are being performed by the institution. Figure 1 gives an outline of these functions and a code for them which will be used in the examples which appear at the end of this manual. A detailed definition of each of the functions and sub-functions is found on pages 48-58 of the basic study document.

FIGURE 1

CODES FOR FUNCTIONS AND SUB-FUNCTIONS

1 Instruction

    11 Organized Teaching of Degree-Credit Courses
    12 Academic Counseling
    13 Provision of Professional Training Facilities
    14 Admissions
    15 Registration and Allied Activities

2 Research

    21 Research Projects
    22 Faculty Development Time
    23 Provision of Special Research Facilities

3 Services to the Public

    31 Organized Teaching of Non-Credit Courses
    32 Dissemination of Knowledge through Other Than Organized Teaching
    33 Regulation and Inspection

4 Services to the Academic Community

    41 Student Development
    42 Financial Aid
    43 Care, Subsistence, and Recreation

5 General Support

    51 Learning Resources
    52 Plant Operation and Maintenance
    53 Administration
    54 Promotion and Development
    55 General Institutional Expense

Where organizational units of the institution are carrying on only one function, the income and expenses of that unit can be directly identified with that function. Where organizational units carry on more than one function, it is necessary to separate these functional activities and their costs, either by close analysis of the organizational unit or through the medium of the academic assignment report.

Income Analysis

1. The primary classification of income in this analytic framework is by function, precisely paralleling the functional expenditure or expense classifications. Any income which can be identified with a function in any way is cast into that functional income classification. Any income for which such functional identification cannot be established is given "General Institutional Income" as its primary classification.

2. The secondary classification of income indicates the source or nature of the income and a description of the individuals or organizations which provide that income, e.g., gifts, state appropriations, endowment income, student fees, sales, rentals, etc.

3. There are two ways in which items of income are to be identified with a particular function:

   a. They may be restricted to the function by the person or organization (outside the institution) providing the income, e.g., gift restricted by donor as to its use, special state appropriation limited by the legislature to a specific purpose.

   b. They may otherwise be produced or earned by an activity within the institution, i.e., represent specific payment for services rendered or goods sold, e.g., auxiliary income such as room rentals, food service sales; income from sales of crops, produce, or animals from an agricultural experiment station; student health service fees; library fines; teaching hospital patient income; student fees for instruction.

Figure 2 (which is the same presentation as was shown in Exhibit 6 of the main study) illustrates the primary and secondary classifications of certain types of income and the mechanisms through which these monies were identified with a particular function.

FIGURE 2

ILLUSTRATION OF PRIMARY AND SECONDARY CLASSIFICATION OF INCOME

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
Instruction	Organized Teaching - DCC	Tuition Fees	Earned by the activity
Instruction	Organized Teaching - DCC	Endowment Income - Chair of History	Restricted by donor
Instruction	Organized Teaching - DCC	Sale of Art Supplies	Earned by the activity
Instruction	Organized Teaching - DCC	NDEA Training Grant - Biology	Restricted by donor
Instruction	Provision of Professional Training Facilities	Laboratory School Tuition	Earned by the activity
Instruction	Admissions	Application Fees	Earned by the activity
Instruction	Registration and Allied Activities	Transcript Charges	Earned by the activity
Research	Research Projects	Research Grant - Public Administration - USOE Project # 1853	Restricted by donor

FIGURE 2--Continued

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
Research	Research Projects	Research Contract - Microbiology - NSF - Flagella Resuscitation	Restricted by donor
Research	Faculty Development Time	Wellington Fellow Abroad Gift	Restricted by donor
Research	Provision of Special Research Facilities	Bloomington Corporation Grant for Operation of Nuclear Reactor	Restricted by donor
Research	Provision of Special Research Facilities	Sale of Nuclear Reactor Time	Earned by the activity
Services to the Public	Organized Teaching - NCC	Technical Institute Fees	Earned by the activity
Services to the Public	Organized Teaching - NCC	Fees - Summer Short Course - Church Ushering	Earned by the activity
Services to the Public	Dissemination of Knowledge, Other	Federal Appropriation for Agricultural and Home Demonstration Extension	Restricted by donor
Services to the Public	Dissemination of Knowledge, Other	State Appropriation for Public School System Surveys	Restricted by donor

FIGURE 2--Continued

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
Services to the Public	Dissemination of Knowledge, Other	Survey Fees - Private Elementary and Secondary Schools	Earned by the activity
Services to the Public	Regulation and Inspection	Gasoline Testing Revenue	Earned by the activity
Services to the Academic Community	Student Development	Test Fees - Vocational Battery	Earned by the activity
Services to the Academic Community	Financial Aid	Scholarships - DuPont Special	Restricted by donor
Services to the Academic Community	Financial Aid	Hilton Prize - Excellence in Latin	Restricted by donor
Services to the Academic Community	Care, Subsistence, and Recreation	Housing - Dormitory Z Room Rentals	Earned by the activity
Services to the Academic Community	Care, Subsistence, and Recreation	Food Service - Cafeteria Sales - Waldorf Room	Earned by the activity
Services to the Academic Community	Care, Subsistence, and Recreation	Intercollegiate Athletics - Football - Games Away - Proceeds	Earned by the activity
General Support	Learning Resources	Library - Walker Memorial Endowment Income	Restricted by donor

FIGURE 2--Continued

Primary Classification		Secondary Classification	Identification Mechanism
Function	Category	Source	
General Support	Learning Resources	Library - Fines	Earned by the activity
General Support	Administration	AIA Gift for Long-Range Campus Planning	Restricted by donor
General Support	Promotion and Development	Alumni Association Dues	Earned by the activity
General Support	General Institutional Expense	Winn-Dixie President's Fund Endowment Income (for Official Entertainment)	Restricted by donor
General Institutional Income		Unrestricted Endowment Income - Walrath Foundation Fund	
General Institutional Income		Sale of Scrap and Surplus	
General Institutional Income		State Appropriation for General Operations	
General Institutional Income		Miscellaneous Small Unrestricted Bequests	

Expense Analysis

I. Analytic Units.

The basic operating units of the institution are described in this analytic procedure as analytic units. Each such analytic unit must be identified and classified as either an environmental unit or a support unit as indicated in the following definitions:

1. An environmental unit is defined as the fundamental operating entity of the environment for learning with which the user comes into direct contact and which renders directly to him a service substantially different from that rendered by any other unit of the environment.

2. A support unit is defined as a fundamental operating unit of the environment which renders services which are of a secondary nature, designed either to assist the environmental units involved in the basic primary functions or to assist the individual being served by these environmental units.

The next step is to determine the utilization factor or factors for each analytic unit. A utilization factor is defined as the service recipient or user of any particular environmental unit.

Figure 3 (which is the same as Exhibit 2 in the main document) presents the analytic units, both environmental units and support units, which are to be used for each of the functions and categories of this analytic procedure and the utilization factor for each of these analytic units.

II. The Cost Components of the Analytic Units.

1. The elements of expense to be identified with each environmental unit, and thus subsequently with the subcategories and categories that contain and summarize those environmental units are:

   a. Direct Academic Compensation
   b. Immediate Support, consisting of:
      1. Administrative Academic Compensation
      2. Non-Academic Compensation
      3. Supplies and Expense

2. The elements of expense to be identified with each support unit, and thus subsequently with the subcategories and categories that contain and summarize those support units, are:

   a. Personal Compensation
   b. Supplies and Expense

FIGURE 3

FUNCTIONAL IDENTIFICATION OF ANALYTIC UNITS AND UTILIZATION FACTORS

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
1. Instruction		
a. Organized Teaching of Degree-Credit Courses	E-Courses, Course Divisions, Sections, and Students	Student Registrations
b. Academic Counseling	E-Groups of Students	Students Counseled
c. Provision of Professional Training Facilities	S-Professional Training Facility	(1) Student Registrations to be Trained in the Facility (2) Users of the Marketable By-Product of the Facility
d. Admissions	S-The organization unit or units carrying on the admissions process or portions thereof devoted to that activity	(1) Applicants for admission (2) Admitted students (3) Student courses
e. Registration and Allied Activities	S-The organization units carrying on the registration process and allied activities or the portions of them devoted to these activities	Student Courses
2. Research		
a. Research Projects		

FIGURE 3--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
Involving Students	E-Project	(1) Direct Academic Staff (2) Degree Students (3) Number of Teachers
Involving Teachers But Not Students	E-Project	(1) Direct Academic Staff (2) Number of Teachers
Involving Neither Teachers Nor Students	E-Project	Direct Academic Staff
b. Faculty Development Time	E-Academic Staff Assignments	Direct Academic Staff
c. Provision of Special Research Facilities	S-Special Research Facility	(1) Research Projects Involved (2) Direct Academic Staff Involved
3. Services to the Public		
a. Organized Teaching of Non-Credit Courses	E-Courses and Sections, Short Courses, Workshops, Conferences	Student Registrations
b. Dissemination of Knowledge through Other Than Organized Teaching	E-The individual activities identified with performing one common service for the ultimate user	(1) The identifiable user of the service performed. If not identifiable, then the final activity designed to carry the service to the user. (2) Direct Academic Staff

FIGURE 3--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
c. Regulation and Inspection	E-Organizational unit carrying on the process or the portion of it devoted to the activity	Identifiable activities carried on
4. Services to the Academic Community		
a. Student Development	S-Support Categories	(1) Individuals served (2) Student Courses
b. Financial Aid		
Operation of Offices and Services	S-Organizational units carrying on financial aid activities or portions of units devoted to the activity	(1) Number of students processed (2) Student Courses
Payments to Students	S-The scholarship, tuition remission, or prize	(1) Number of "free grants" (2) Student Courses
c. Care, Subsistence, and Recreation		
Housing	S-Housing Units	(1) Student and Staff Rentals (2) Student Courses
Food Service	S-Food Service Units	(1) Meals Served (2) Student Courses
Stores and Shops	S-Store Units	(1) Individual Sales (2) Student Courses
Student Center	S-Center Units	(1) Individuals Served (2) Student Courses
Health Service	S-Service Units	(1) Individuals Served (2) Student Courses

FIGURE 3--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Utilization Factors
Parking	S-Lots or structures	(1) Spaces (2) Users
Airport	S-Service Units	Individuals Served
Intercollegiate Athletics	S-Programs	(1) Student Participants (2) Admissions (3) Student Courses
Student Organizations and Activities	S-Individual Organizations and Activities	(1) Individuals Served (2) Student Courses
Cultural Activities	S-Individual Programs and Activities	(1) Admissions (or Attendance) (2) Student Courses
5. General Support		
a. Learning Resources	S-Support Categories	Four Direct Functions, as measured by: (1) Total FTE Academic Staff (2) Total Compensation for FTE Academic Staff (3) Total Expenses for Instruction, Research, Services to the Public, and Services to the Academic Community
b. Plant Operation and Maintenance	S-Support Categories	
c. Administration	S-Support Categories	
d. Promotion and Development	S-Support Categories	
e. General Institutional Expense	S-Support Categories	

The word compensation as used in this procedure refers to those expenses incurred in payment for personal services rendered to the institution by the individual employee. The term is discussed at some length on pages 60-61 of the main document.

III. The Identification, Classification, and Description of the Analytic Units.

The heart of the analytic procedure set forth in this study involves the identification of the different analytic units within the functions of the institution, the classification of those units in accordance with various definitions set forth by this procedure, and the complete description of the resources of the institution, both human and financial, devoted to each of those units and of the utilization made of the units by students or other persons to whom services are rendered. Once this has been done, almost any sort of analysis of the institution's current activities becomes possible. All of the various report formats which are found at the end of the main document of this study find their source in the data which describe and are attached to each of the various types of analytic units within each of the functions.

Figure 4 is the basic analytic unit data sheet which should be created for each analytic unit or, if machine operation is used, the listing of basic information which must be capable of being identified with each analytic unit within the tapes. The analytic unit data sheet is a comprehensive document allowing for the maximum identifications that could be expected to be necessary for any one analytic unit. Many of the categories therein would not apply at all to support units and no one analytic unit would have an entry for every line on the sheet.

The items of information on the analytic unit data sheet are grouped according to the institutional source wherein this data should be originally collected. Figure 5 presents a flow chart showing how the information flows from these special data centers to ultimately become attached to the individual environmental and support units from which the basic analyses and reports are produced.

Needless to say, the first step is the identification on the analytic unit data sheet of the function and categories which are being performed by the unit being analyzed. The code for these functions and categories was given in Figure 1 earlier.[1]

Unit Classifications

Unit classifications represent basic classifications of the analytic units which are made by the institution itself. These

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[1] Supra, p. 390.

FIGURE 4

ANALYTIC UNIT DATA SHEET

Function Category

Unit Classifications
- (1) Unit Identification
  - (a) Number
  - (b) Special Identification
- (2) Joint Course Division Meetings
- (3) Lowest Organizational Unit
- (4) Second Organizational Unit
- (5) Location
- (6) Credits
- (7) Contact Periods
  - (a) Number Per Week
  - (b) Minutes Per Period
- (8) Special Classification
- (9) Subject Matter
- (10) Level of Instruction
- (11) Academic Load Policy
- (12) Optimum Assignment Value
- (13) Optimum Size in Student Registrations

Term Identifications
- (14) Term
- (15) Length in Weeks
- (16) Term Hours

Payroll and Personnel Data
- (17) Academic Staff
  - (a) ID Number
  - (b) Rank
  - (c) FTE Academic Compensation Per Term
  - (d) Student Status
- (18) Non-Academic and Administrative Staff
  - (a) Number - FTE
  - (b) Personal Compensation

Registration Data
- (19) Total Student Registrations
- (20) Total Student Courses
- (21) Student Classifications
  - (a) Degree
  - (b) Field of Study
  - (c) Progress Category
  - (d) Course Load

Central Accounts Data
- (22) Supplies and Expense

FIGURE 4--Continued

Function
Category

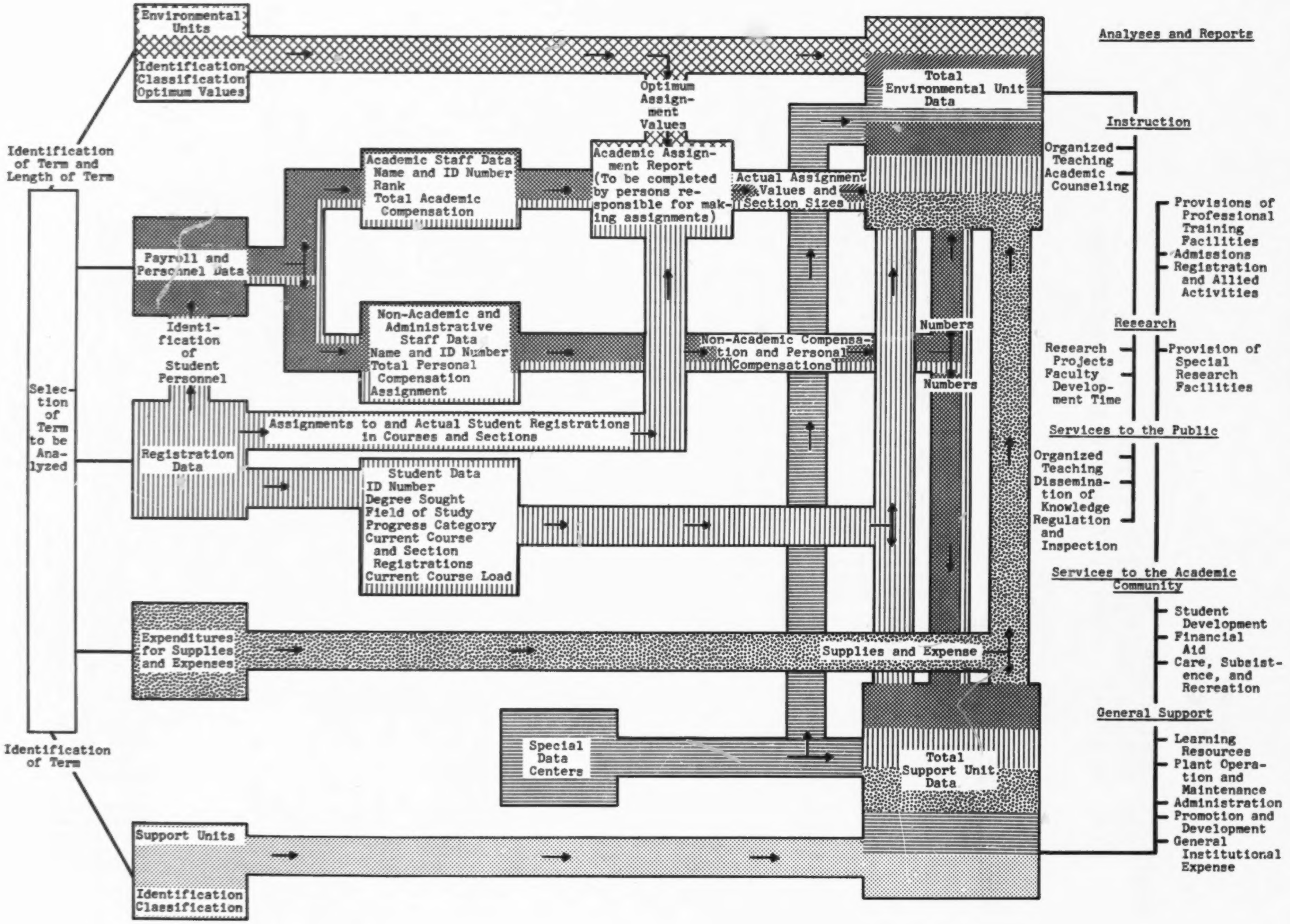
Academic Assignment Report
- (23) Actual Assignment Value
- (24) Academic Administrative Compensation
    - (a) FTE
    - (b) Amount

Special Data Centers
- (25) Instruction
    - (a) Counseling
        - (1) Number of Counseling Registrations
    - (b) Admissions
        - (1) Total Applications Processed
        - (2) Total Students Admitted
- (26) Research
    - (a) Research Projects
        - (1) Number of Teaching Staff Participating
        - (2) Number of Research Registrations
    - (b) Provision of Special Research Facilities
        - (1) Number of Research Projects Utilizing Unit
        - (2) Number of Individual Academic Staff Utilizing Unit
- (27) Services to the Public
    - (a) Dissemination of Knowledge
        - (1) Special Service Indices
    - (b) Regulation and Inspection
        - (1) Licenses Issued
        - (2) Inspections Performed
- (28) Services to the Academic Community
    - (a) Student Development
        - (1) Number of Students Counseled
        - (2) Number of Tests Administered
        - (3) Number of Students Placed
    - (b) Student Financial Aid
        - (1) Number of Students Processed
        - (2) Number of Students Receiving Grants (by type of grant)
    - (c) Care, Subsistence, and Recreation
        - (1) Special Service Indices

Calculated Data
- (29) Direct Academic Compensation
- (30) Immediate Support
- (31) TOTAL EXPENSES

FIGURE 5

FLOW CHART OF ANALYTIC UNIT DATA


Environmental Units
Identification
Classification
Optimum Values
Identification of Term and Length of Term
Selection of Term to be Analyzed
Identification of Term
Payroll and Personnel Data
Identification of Student Personnel
Registration Data
Expenditures for Supplies and Expenses
Special Data Centers
Support Units
Identification
Classification
Academic Staff Data
Name and ID Number
Rank
Total Academic Compensation
Non-Academic and Administrative Staff Data
Name and ID Number
Total Personal Compensation
Assignment
Student Data
ID Number
Degree Sought
Field of Study
Progress Category
Current Course and Section Registrations
Current Course Load
Assignments to and Actual Student Registrations in Courses and Sections
Optimum Assignment Values
Academic Assignment Report (To be completed by persons responsible for making assignments)
Actual Assignment Values and Section Sizes
Non-Academic Compensation and Personal Compensations
Numbers
Numbers
Supplies and Expense
Total Environmental Unit Data
Total Support Unit Data
Analyses and Reports
Instruction
Organized Teaching
Academic Counseling
Provisions of Professional Training Facilities
Admissions
Registration and Allied Activities
Research
Research Projects
Faculty Development Time
Provision of Special Research Facilities
Services to the Public
Organized Teaching
Dissemination of Knowledge
Regulation and Inspection
Services to the Academic Community
Student Development
Financial Aid
Care, Subsistence, and Recreation
General Support
Learning Resources
Plant Operation and Maintenance
Administration
Promotion and Development
General Institutional Expense

classifications should be made in the central institutional office having responsibility for the conduct of the institutional analysis, with the close cooperation of the various departments responsible for the units concerned. Thus, every course, course division, section, research project, and the like should be classified, wherever possible, in accordance with the classifications shown on this sheet (from 1 to 13) prior to the analytic period. These classifications should be considered to be of a permanent, or at least semi-permanent, nature, to be changed only when some basic policy change takes place in the institution or when experience shows that the original classification was not a realistic one. In all cases, the prime source for information to be used in classification of the unit should be the institutional staff member having the responsibility for the actual administration and assignment of responsibilities to the unit.

(1) Unit Identification.

a. Number

Each analytic unit in an institution for the term to be analyzed should be given an identification number. These numbers can be sequential, starting at (1) for each category. Thus, if there were 350 units in Organized Teaching of Degree-Credit Courses, the unit identification numbers would run from 11-001 to 11-350.

b. Special Identification

Certain of the analytic units require a special description or identification which cannot be found in further classifications of that unit. Figure 6 lists the units which need such identification and suggests certain codes for these special identifications which will be used in the examples within this manual.

(2) Joint Course Division Meetings.

If an analytic unit has one or more other course divisions meeting jointly with it, the unit identification number for that joint course division or divisions should be indicated. This, of course, would apply only to analytic environmental units in Organized Teaching.

(3) Lowest Organizational Unit and (4) Second Organizational Unit.

These categories would require an organizational code for the institution. Such a code would identify each organizational unit within the college or university.

(5) Location.

The location of the analytic unit requires a code which identifies the various institutional geographic locations where functions might be carried on. This does not mean the room

FIGURE 6

SPECIAL IDENTIFICATIONS FOR ANALYTIC UNITS

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
1. Instruction		
a. Organized Teaching of Degree-Credit Courses	E-Courses, Course Divisions, Sections, and Students	Courses and sections need to be identified. Course divisions (lecture, laboratory, quiz) need no special identification since they will be identified by the special classification of the unit later on. It is suggested that the course number, itself, followed by a section number, be used. Thus, for History 203, Quiz Section No. 1, the special identification would be 203-1. History would be identified by the coding of the lowest organizational unit (no. 3 in the analytic unit data sheet), and the fact that it is a quiz section would be identified by the special classification (8 in the analytic unit data sheet). Where the environmental unit was a student, as in the case of independent study or work on graduate thesis, no special identification would be needed since the student would be identified by student classification later on and by the academic staff member responsible for that student.

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
b. Academic Counseling	E-Groups of Students	No special identification needed. Groups of students being counseled in this analysis are identified by the faculty member responsible for those students. The academic staff member responsible for the unit is identified in the data sheet (17).
c. Provision of Professional Training Facilities	S-Professional Training Facility	If the professional training facility represents an organizational unit in itself, it would be identified as the lowest organizational unit. If it does not, a special code would have to be used to give the facility a special identification.
d. Admissions	S-The organization unit or units carrying on the admissions process or portions thereof devoted to that activity	No special identification needed. The organizational unit is identified in the data sheet.
e. Registration and Allied Activities	S-The organization units carrying on the registration process and allied activities or the portions of them devoted to these activities	No special identification needed. The organizational unit is identified in the data sheet.

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
2. Research		
a. Research Projects	E-Project	A special identification number should be given to each research project. The department involved will be identified by the lowest organizational unit.
b. Faculty Development Time	E-Academic Staff Assignments	No special identification needed. The assignment is identified by the academic staff assignment later in the data sheet.
c. Provision of Special Research Facilities	S-Special Research Facility	If the special research facility represents an organizational unit in itself, it would be identified as the lowest organizational unit. If it does not, a special code would have to be used to give the facility a special identification.
3. Services to the Public		
a. Organized Teaching of Non-Credit Courses	E-Courses and Sections, Short Courses, Workshops, Conferences	Each course and section, short course, workshop, and conference should be given a special identification number.
b. Dissemination of Knowledge through Other Than Organized Teaching	E-The individual activities identified with performing one common service for the ultimate user	No special identification needed. The activities which make up the Dissemination of Knowledge are best identified through the academic staff member

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
		carrying on those activities. The staff members are identified later on in the data sheet.
c. Regulation and Inspection	E-Organizational unit carrying on the process or the portion of it devoted to the activity	No special identification needed. The lowest organizational unit will identify the analytic unit.
4. Services to the Academic Community		
a. Student Development	S-Support Categories	The following codes are suggested for the support categories: (1) Social-psychological counseling (2) Religious training activities (3) Vocational testing and placement
b. Financial Aid		
Operation of Offices and Services	S-Organizational units carrying on financial aid activities or portions of units devoted to the activity	No special identification needed since organizational units are identified.
Payments to Students	S-The scholarship, tuition remission, or prize	Each individual scholarship, tuition remission, and prize should bear a separate unit identification number.

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
c. Care, Subsistence, and Recreation		
Housing	S-Housing Units	Each individual housing unit should bear a separate unit identification number.
Food Service	S-Food Service Units	Each individual food service unit should bear a separate unit identification number.
Stores and Shops	S-Store Units	Each individual store unit should bear a separate unit identification number.
Student Center	S-Center Units	Each individual center unit should bear a separate unit identification number.
Health Service	S-Service Units	Each individual service unit should bear a separate unit identification number.
Parking	S-Lots or structures	Each individual lot or structure should bear a separate unit identification number.
Airport	S-Service Units	Each individual service unit should bear a separate unit identification number.
Intercollegiate Athletics	S-Programs	Each individual program should bear a separate unit identification number.

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
Student Organizations and Activities	S-Individual Organizations and Activities	Each individual organization and activity should bear a separate unit identification number.
Cultural Activities	S-Individual Programs and Activities	Each individual program and activity should bear a separate unit identification number.
5. General Support		
a. Learning Resources	S-Support Categories	The following codes are suggested for the support categories: (1) Library (2) Museum (3) Audio-Visual Aids (motion pictures, slides, film strips, tapes, records, charts, etc.) (4) Language Laboratory (carrels for programmed practice) (5) Automated Information Storage and Retrieval System (6) Instructional Radio and Television (7) Teaching Machines
b. Plant Operation and Maintenance	S-Support Categories	The following codes are suggested for the support categories: (1) Care and Cleaning of Grounds, Walks, Streets (2) Maintenance and Repair of Buildings (3) Routine Care and Cleaning of Buildings

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
		(4) Provision of Utilities--Heat, Light, Power, Water, Sewer (5) Protection of Plant and Persons--Police and Watchmen; Fire Protection; Fire Insurance (6) Transportation Services--General Trucking; Central Motor Vehicle Service; Campus Bus Service (7) Rental of Space (8) Plant O & M Administration
c. Administration	S-Support Categories	The following codes are suggested for support categories: (1) Governing Board (2) Chief Administrative Office (President, General Vice-President, Dean of Administration) (3) Academic Administration (Academic Vice-President, Dean of the Faculty) (4) Business and Financial Administration and Services (Fiscal Vice-President, Controller, Business Manager, and staffs) (5) Research Administration (Vice-President for Research, Director of Research) (6) Personnel Administration and Services (including Recruitment Expenses and

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
		Administration of Staff Benefits) (7) Student Affairs Administration (Vice-President for Student Affairs or Dean of Student Affairs) (8) Institution-Wide Committees of the Faculty (9) Institutional Research (10) Campus Planning
d. Promotion and Development	S-Support Categories	The following codes are suggested for support categories: (1) Fund-raising (2) Alumni Relations (3) Public Relations and Publicity (4) Student Recruitment
e. General Institutional Expense	S-Support Categories	The following codes are suggested for support categories: (1) Institutional Memberships (2) Professional Fees and Consultants (3) Communications Services (4) Insurance (fidelity, liability, workmen's compensation, not property) (5) Interest (on current funds, not plant funds) (6) Bad Debts (7) Official Entertainment

FIGURE 6--Continued

Function and Category	Analytic Unit (E-Environmental S-Support)	Special Identification
		(8) Commencement, Convocations, Public Events
		(9) Unallocated Staff Benefits
		(10) Allowances to Retired Personnel; Payments to Dependents of Deceased Personnel
		(11) Unassigned Academic Personnel

location on the campus, but various general activity locations as indicated in the sample classifications below:

1. Main campus--regular session
2. Evening college
3. Glenwood Extension Center
4. Maple City Extension Center
5. General state-wide extension (going from the campus to various locations in the area)
6. Various field agricultural experiment stations which could be identified as 61, 62, 63, etc.
7. Various agricultural extension service locations which could be identified as 71, 72, 73, etc.

(6) Credits.

Credits are applicable only to Organized Teaching of Degree-Credit Courses. The actual number of credits given for the analytic unit should be recorded, such as 3, 4, 5, etc.

(7) Contact Periods.

a. Number Per Week

The number of contact periods for a particular analytic unit should be entered; e.g., 1, 2, 3, etc.

b. Minutes Per Period

The actual number of minutes for each period of the analytic unit under consideration should be listed. If it meets in 50-minute periods, the figure here would be 50. If the periods are two hours in length, as in the case of a laboratory period, the figure would be 120.

(8) Special Classification.

Several of the analytic units in the various functions carry special classifications. These classifications and a suggested code for each are listed below:

Instruction
  Organized Teaching of Degree-Credit Courses
    Characteristic of Course Organization
      10 Group Instruction
      11 Lecture
      12 Seminar, Discussion, or Quiz
      13 Laboratory
      14 Other Instructional Arrangements for Groups

      20 One Teacher-One Student Relationships
      21 Independent Study
      22 Supervision of Graduate Candidacies

- 23 Experience Courses and Programs
- 24 Correspondence Study

- Academic Counseling
  - 01 Assigned Counseling of Students on Programs
  - 02 Graduate Committee Service

- Provision of Professional Training Facilities
  - 01 Teacher Training Facility
  - 02 Food Service Training Facility
  - 03 Agricultural Training Facility
  - 04 Forestry Training Facility
  - 05 Clinical and Counseling Training Facility
  - 06 Medical Training Facility
  - 07 Aeronautical Training Facility
  - 08 Transient Housing Training Facility
  - 09 Data Processors Training Facility
  - 10 Theatre Training Facility

- Research
  - Research Projects
    - Relation to Instruction
      - 01 Involving Students
      - 02 Involving Teachers But Not Students
      - 03 Involving Neither Teachers Nor Students

  - Faculty Development Time
    - 01 Resident
    - 02 Leave with Pay

- Services to the Public
  - Organized Teaching of Non-Credit Courses
    - 10 Group Instruction
    - 11 Lecture
    - 12 Seminar, Discussion, or Quiz
    - 13 Laboratory
    - 14 Other Instructional Arrangements for Groups
    - 20 One Teacher-One Student Relationships
    - 21 Independent Study
    - 22 Supervision of Graduate Candidacies
    - 23 Experience Courses and Programs
    - 24 Correspondence Study

  - Dissemination of Knowledge through Other Than Organized Teaching
    - 01 Agricultural and Home Demonstration Extension
    - 02 Community TV and Radio
    - 03 University Press
    - 04 Scholarly Journal or Magazine Publication
    - 05 Elementary and Secondary School Survey
    - 06 Consultant Services

(9) Subject Matter.

Each institution must develop its own subject matter categorization scheme or design, with a code for that classification, in order to identify the subject matter with which any unit is concerned. This would apply only to certain of the environmental units, namely, Organized Teaching of Degree-Credit Courses, Provision of Professional Training Facilities, Research Projects, Faculty Development Time, Provision of Special Research Facilities, Organized Teaching of Non-Credit Courses, and Dissemination of Knowledge through Other Than Organized Teaching.

(10) Level of Instruction.

This identification would be made only for the Organized Teaching of Degree-Credit Courses. There are three levels of instruction in accordance with which the course should be classified:

1. Undergraduate
2. Graduate
3. Graduate and Advanced Undergraduate

(11) Academic Load Policy.

For each environmental unit the academic load policy of the institution which applies to that unit should be stated. This might be in terms of the value of that unit as a portion of the total load. In this case the classification would be the same as the Optimum Assignment Value and would be expressed in percentages of 100, such as .33, .25, or .50. If the academic load policy is expressed in terms that recognize the number of students as an additional factor in determining the assignment value, it will be necessary to indicate this in some manner at this point. The following codes are used as examples in this document:

1000 - The first digit of this code indicates that the academic load policy is expressed in terms of percentage of a full load which this unit represents. The last three digits reflect that percentage. Thus 1025 would indicate that the unit is worth .25 of a full academic load.

2000 - This code indicates an academic load policy which measures load in terms of numbers of students. The last three digits are reserved for the total number of students which equals 100 per cent or a full academic load. Thus 2090 would indicate that in this institution for this type of unit the policy is that 90 student registrations (or counseling registrations) constitute a full academic load.

3000 - This code indicates that student credit hours are used to determine a full academic load. The last three digits are reserved for the total number of student credit hours which constitute a full load. Thus 3350 would indicate that 350 student credit hours constitute a full load.

4000 - This specification indicates that student contact periods are used to indicate the complete load. Thus 4250 would indicate that 250 contact periods constitute a full academic load.

(12) Optimum Assignment Value.

This would always be registered in percentage of full time load represented by the environmental unit being classified. Thus it would always be recorded as ranging from 001 to 100. If the academic load policy is given in these terms (1000 series in item 11 above), it will be possible to record the optimum assignment value at the same time as the academic load policy is recorded for the unit. If the academic load policy is given in other terms which include some calculation of student registrations, the optimum assignment value can be calculated only after actual student registrations for the term have been identified and recorded.

(13) Optimum Size of Student Registrations.

This classification indicates the total number of student registrations which the analytic unit will accommodate if it is an analytic unit which is concerned with students. The number of students which constitutes this optimum size would be entered here, such as 15, 25, 130, etc.

Term Identifications

The second group of items of information which must be completed for each analytic unit is made up of those items which identify the institutional term under analysis. The analytic unit data which is required to be known consists of only two items--identification of the term and a compilation of the term hours, with the latter required only for environmental units in Organized Teaching. In order to make this latter calculation, however, it is necessary to also define the length of the term under analysis in weeks.

(14) Term.

The institutional term which is being analyzed must be identified. Such an identification should serve to clearly designate the year and the institutional term within that particular year. For purposes of illustration here, a three-digit code suggested a first digit referring to the number of the term (1 - first semester, 2 - second semester, 3 - summer session) and the second two figures being the fiscal year involved. Thus, the first semester of the 1964-65 academic year would be 165.

(15) Length in Weeks.

The number of the weeks in the term being analyzed should be identified. This would be the number of weeks of actual classes including examination periods but excluding registration periods.

(16) Term Hours.

The term hour is a calculation of the number of clock hours of class meetings throughout the year. It is calculated by multiplying the number of contact periods per week times the number of minutes per period times the length of the term in weeks and dividing the final product by 60. Thus, with reference to the classification numbers on the analytic unit data sheet, the formula for this calculation would be (7a) x (7b) x (15) ÷ 60 = term hours.

Payroll and Personnel Data

The third grouping of items of information concerning the analytic unit is those items which have their origin in the payroll and personnel data of the institution. These items fall into two broad classifications: information which describes the academic staff assigned to the unit and information which describes the non-academic and administrative staff assigned to or responsible for the unit.

(17) Academic Staff.

a. ID Number

It is necessary to identify each academic staff member assigned to an environmental unit. This identification is the means for linking the unit assignments with the payroll and personnel data on the academic staff member concerned. It is suggested that this identification be made in terms of a number rather than the staff member's name since similarities in names can lead to confusion. If an institution already has staff ID numbers in effect, these numbers can be used. Since every staff member has a social security number, it is further suggested that this number might well serve as a uniform ID number for all persons.

b. Rank

In order to make analyses of the responsibilities of staff members of varying ranks in different environmental units, it is also necessary to identify the rank of the staff member. A simple rank code can be used for this purpose. For illustrative purposes, in this manual, the following code is used:

1. Professor
2. Associate Professor
3. Assistant Professor
4. Instructor
5. Lecturer
6. Graduate Assistant

c. FTE Academic Compensation Per Term

There should be recorded here the full-time-equivalent academic compensation of the staff member for the term under analysis. The reasons for converting this compensation figure to a full-time-equivalent if the man concerned is actually a half-time employee are two in number:

1. The assignment value of various analytic units is stated in terms of a percentage of full time. Thus, in obtaining the direct academic compensation which should be allocated to the unit being analyzed, there is less chance of error if the full-time-equivalent compensation per staff member is used here. The calculation then becomes a simple one of multiplication of the value of the academic assignment times the compensation and is always concerned with a percentage assignment value for the unit times 100 per cent of the compensation.

2. It may be useful to analyze the utilization of academic staff in terms of salary values; e.g., how many courses are taught by men with salaries ranging from \$10,000 to \$15,000, from \$8,000 to \$10,000, etc. If the academic compensation is reported in terms of a full-time-equivalent, no confusion will arise in making this type of analysis.

The full-time-equivalent academic compensation often is a calculated figure. The basic payroll and personnel data will not necessarily reflect full-time academic compensation in the case of an employee who is less than full-time in the institution. Thus, it is necessary in the basic payroll and personnel data to identify two further pieces of information concerning each academic staff member: (1) the actual academic compensation of the man for the term and (2) the available time equivalent of the man.

Available time equivalent is defined as the total amount of time, in relation to full time or 100 per cent, that an individual is available to the institution employing him. Thus, the available time equivalent, or ATE, of a half-time employee would be .50. The FTE academic compensation can be calculated by dividing the actual academic compensation for the term by the available time equivalent (Actual Academic Compensation ÷ ATE = FTE Academic Compensation). As will be seen later, this ATE is also used in the academic assignment report.

The FTE academic compensation should be reported for each staff member bearing a responsibility for each analytic unit. The actual dollar salary figures should be used, such as 5000, 5200, 4800, etc.

d. Student Status

In every case the student status of the academic staff member should be reported. This information may not normally be in the basic payroll and personnel data and thus should be transferred to that data from the registration data of the institution. A simple code of N for non-student and S for student is used for illustrative purposes herein.

(18) Non-Academic and Administrative Staff.

For all analytic units it is necessary to identify the number of FTE non-academic and administrative staff assigned to or responsible for each unit and the personal compensation of those staff members which should be allocated to each unit. For support units this is done by a study of the assignments of the non-academic and administrative staff members. In the case of environmental units, where the assignment or responsibility of a non-academic or administrative staff member is concerned with more than one unit, both the number and compensation of the staff are to be identified with the unit in two different ways. First, there are those non-academic employees whose compensation is directly allocable to certain environmental units. Secondly, there are non-academic employees whose compensation is not directly allocable to any of the environmental units but which rather may be identified with individual academic employees they serve and only through those employees to the environmental units. In such a case, the numbers and compensation of the non-academic employees are to be aligned with the group of academics which they serve and apportioned to the individual environmental units and other assignments of those academics in proportion to the full-time-equivalent value of each.

Thus, if a departmental secretary were assigned full time to a department consisting of four FTE academic staff members and had a personal compensation of $1,200 for the term being analyzed, each one of the academic staff members would be supported by .25 academic employee with a personal compensation of $300. If the particular environmental unit being classified, for example a course, had an assignment value of .20, the number of non-academic employees in support of that particular unit would be .05 (.25 x .20) and the personal compensation for non-academic staff members in support of the unit would be $60 ($300 x .20).

Registration Data

Another grouping of items of information to be identified with each analytic unit consists of information which stems from the basic registration data of the institution. The only environmental units concerned with this type of data would be those in Organized Teaching of either degree or non-degree credit courses where students formally register for instruction.

(19) Total Student Registrations.

This involves simply the recording of the actual number of student registrations in the environmental unit being analyzed.

(20) Total Student Courses.

It is necessary, in every case, to identify the total numbers of students registered in the course of which the environmental unit being classified is a part. In the case of single-division courses, the total student courses would equal the total student registrations. In the case of courses with two or more course divisions, this figure would be different since the student registrations in course divisions are not additive to student courses in such cases. The total number of student courses should be recorded in simple numerical form such as 151, 28, etc.

(21) Student Classifications.

The source for the data concerning student classifications is the actual student record of each student registered in each environmental unit as recorded in the office of the registrar. These records should be classified in the office of the registrar and be reviewed, if necessary, to take care of any changes in classification.

Four identifiable characteristics of students are relevant for this analysis: (a) the degree which the student is seeking; (b) the field of study in which he is enrolled; (c) the progress category or level of advancement of the student; and (d) the course load of the student which reflects the extent to which that student is "full-time." Each student in the institution should carry a classification for these four characteristics. These classifications then are reflected for each student registered in each environmental unit.

a. Degree

The classification of degrees used by the United States Office of Education in its annual survey of "Bachelor's and Higher Degrees Conferred" is incorporated in the classifications used for degrees in this analytic procedure. The most recent U.S. Office classification, that for the year 1964-65, is reproduced in

Appendix A of this report. In addition, a fifth category is added for junior colleges--that of associate degrees. The codings used for these degrees in the examples given herein are:

1. Bachelor's degrees
2. First-professional degrees requiring five or more years
3. Master's degrees
4. Doctorate
5. Associate degrees

In institutions granting both the associate and bachelor's degrees, the classification of bachelor's should be used unless the degree program has involved as its major objective the associate degree. In any event, in calculating the progress category of the student, the bachelor's degree program should always be considered as beginning with the student's original enrollment in an institution of higher learning and never as beginning after the completion of an associate degree program.

b. Field of Study

The classification for student's field of study or field of concentration used in this analysis is, again, that used in the United States Office of Education annual survey of "Bachelor's and Higher Degrees Conferred," which is found in Appendix A of this report. As this classification may be changed by the U.S. Office, institutions using this procedure should adopt those changes. Codings and classifications used as examples herein are found in Appendix A.

c. Progress Category

The classification of progress category for a student is discussed at some length in the main body of this study on pages 106-108. Basically, the progress category of each student is measured and reported in terms of number of progress terms which the student has completed in relation to the particular degree which he is pursuing. A progress term is defined as the regular academic teaching period of the institution being analyzed. Thus, in an institution under the semester system, the progress term would be one semester. In order to make this classification, the institution must define the total number of progress terms normally required for a full-time student to attain the degree in the particular field of study which he is pursuing at that institution. For example, in the same institution it might be eight progress terms for a bachelor's degree in liberal arts and ten progress terms for a professional degree in pharmacy. Once this determination is made, the institution then evaluates, for each student, the number of progress terms remaining for that particular student to complete his degree program after the close of the term under analysis. This figure (the number of terms remaining) subtracted from the total progress terms required for the field of study would give the progress term classification of that particular student. It would be recorded as a whole number--1, 2, 3, 4, etc. Thus, a student in a bachelor's degree program in liberal arts normally consisting of eight progress terms who had three terms remaining after the close of the term under analysis would be classified in progress term 5 (8 - 3 = 5). Graduate students who have completed the campus course requirements and entered the dissertation or thesis stage have a progress term classification of D followed by the number of institutional progress terms the student has been in the "D" category or, in other words, the number of institutional progress terms that have elapsed since the completion of the formal course requirements.

d. Course Load

This category records the total number of courses for which the student is registered during the term under analysis and will be represented by that number, such as 4, 3, etc.

e. Number

In classifying a particular environmental unit as to student classification, it would be necessary to identify the four classifications above for each student registered in the unit. For ease of handling of data, it would not be necessary to list out every student. Instead students having like classifications in all four categories could be brought together and only the total number in those categories shown. Thus, Exhibit 16 on page 110 of the main document shows an environmental unit with 28 student registrations which would be classified as follows:

Number of Student Registrations	Degree	Field of Study	Progress Category	Course Load
8	1	7701	1	4
1	1	7701	1	2
1	1	7725	2	4
5	1	6816	3	4
1	1	6819	7	5
6	1	2359	1	4
2	1	2376	3	4
2	1	2004	1	4
1	1	2004	3	2
1	1	2002	6	4

Central Accounting Data

The fifth source for data to be identified with the analytic unit is the central accounts of the institution. From these accounts the number of dollars expended for supplies and expense for a particular unit are obtained. These dollars, which are in immediate support of environmental units and one of the two cost components of support units, are allocated to the units in the same manner as non-academic and administrative compensation. Where supplies and expense are directly identifiable with and directly allocable to environmental or support units, this allocation should be done and the number entered for that unit at this point. Where expenditures for supplies and expense are identifiable to the environmental or support units only indirectly through the individuals which utilize them, then these amounts are to be aligned with the group of academics which they support and apportioned to the individual environmental units in proportion to the FTE value of the academic assignment of those units as was done with non-academic and administrative compensation.

(22) Supplies and Expense.

The actual dollar value of expense directly allocable to the unit, either because it is directly identifiable with the unit or has been allocated through the academic assignment of the unit, is recorded at this point.

Academic Assignment Report

The next source of data about the analytic unit is the academic assignment report. This would be used only in the case of environmental units since support units do not carry a direct academic compensation figure. The academic assignment report is the report which is to be completed each term giving the actual assignment values of all academic personnel for that term. A copy of this report is found in Figure 7 on the following page. The academic assignment report for each individual academic employee is to be completed by the academic administrator or official responsible for assigning each particular academic employee's responsibilities. In most cases this would be the staff member's department head, but in some cases this might not necessarily be true.

It should be noticed that a section of the report is devoted to each type of environmental unit that might constitute an academic assignment--Instruction, Research, and Services to the Public, and another section is devoted to academic administrative assignments. A final section allows for the recording of assigned duties which would not be accounted for in the other sections. This would enable single consolidated reporting for staff members who had assignments in both environmental and support units as, for example, a university comptroller who also taught a course in accounting.

Each assignment, i.e., course or section, counseling responsibility, research project, etc., should be recorded on this sheet. It will be noted further that there are three columns to be completed

FIGURE 7

ACADEMIC ASSIGNMENT REPORT

Term:	Available Time Equivalent:
Name:	Total Professional Compensation (Term):
ID Number:	FTE Professional Compensation (Term):
Student Status:	
Department:	

Academic Assignments	Optimum Assignment Value	Adjusted Assignment Value	Actual Assignment Value
Instruction			
Organized Teaching			
1. (Course, Course Division,			
2. and Section Identifi-			
3. cation)			
4.			
5.			
Academic Counseling			
Assigned Counseling of Students in Programs			
1. Total Number _____			
2. Identification of Students (by ID No.)			
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
Graduate Committee Assignments (Other than Chairman)			
1. Total Number _____			
2. Identification of Students (by ID No.)			
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
________	xxxxxxxxxxxxxxxxxxxxxxxxx		
Research			
Research Projects			
1. (Project Number)			
2.			
3.			
4.			
Faculty Development Time			

FIGURE 7--Continued

Academic Assignments	Optimum Assignment Value	Adjusted Assignment Value	Actual Assignment Value
Services to the Public			
Organized Teaching			
1. (Course, Course Division,			
2. and Section Identifi-			
3. cation)			
4.			
Dissemination of Knowledge			
1. (Identification of			
2. Activity)			
3.			
4.			
Regulation and Inspection			
1. (Identification of			
2. Activity)			
Academic Administrative Assignments			
1. (Identify assignment and			
2. activities or organization			
3. unit for which adminis-			
4. trative responsibility is held.)			
Unassigned Time			
Assigned Duties Other Than the Above Academic Assignments			
Total Assignment Values			

(Enter as totals in these two columns the ATE shown in upper right hand corner of the report. Actual Assignment Values and Adjusted Assignment Values must add to the ATE figure.)

Signature of Department Head

on the sheet: the optimum assignment value, the adjusted assignment value, and the actual assignment value. Optimum assignment values will already have been assigned to most environmental units. This column may then be completed by the institutional office which has the responsibility for issuing the reports to the various department heads. The first step is to determine what assignments each academic staff member has during that particular period. These assignments are then reproduced on the academic assignment report. The optimum assignment value of each of the assignments should be ascertained from the permanent record of those particular environmental units and also be placed on the report.

In all cases, the final actual assignment value must total the same percentage as the available time equivalent (ATE) of the faculty member which, as discussed earlier, comes from the basic payroll and personnel records. Thus, since no man can be more than 100 per cent, the actual assignment value may never total more than 1.00. If the available time equivalent is less than 100 per cent, as in the case of a half-time employee who would be .50, the total actual assignment value must also be .50. If the optimum assignment values do not total the same as the ATE, it then becomes necessary to adjust them to reach the ATE total. If the optimum assignment values are less than the ATE, these values would be carried over, again, by the central institutional office preparing the report to the adjusted assignment value column and the difference between their total and 1.00 would be recorded opposite unassigned time. If the optimum assignment values amount to more than 1.00, it will be necessary to reduce them all proportionally in the adjusted assignment value column in order that they might total 1.00.

Once these adjustments have been made, the report is then sent to the department head or other staff member responsible for making the actual assignments of the academic employee for whom the report is to be completed. The department head studies the various assignments of the individual, the optimum assignment values which were given to those assignments by him in the first place when the environmental unit was classified, and the adjustments which have been made. If he disagrees with his original optimum assignment values or with the adjustments which have been made, he records his assessment of actual assignment values in the third column headed Actual Assignment Value. This column, however, must still total to the ATE of the individual concerned. Thus, for example, in the case of the faculty member whose optimum assignment value did not total 1.00 (where the ATE was 1.00) and an addition had been made in the adjusted assignment value column for unassigned time, the department head may know of some assignment which does not appear on the sheet which accounts for this time. Or, it may be that he had positively assigned this time to faculty development time. If so, he should enter these changes and carry over the correct assignment value in the actual assignment value column. Likewise, in the case of the faculty member whose optimum assignment value totaled more than 1.00 and where a proportionate reduction has been made, the department head may determine that the reduction should be in some other proportion than that made by the central office. This should be done in the actual assignment value column. The figures shown in the actual assignment value column are the ones which are to be entered on the analytic unit data sheet and to be used in calculating the assignment value of each environmental unit. Once the department head has completed the report, it should be signed by him and returned to the central office. From the report it then becomes possible to enter the actual assignment value and to calculate the academic administrative compensation to be placed on the analytic unit data sheet.

(23) Actual Assignment Value.

The actual assignment value of the unit comes from the actual assignment value column of the academic assignment report for any particular unit. This will be recorded in terms of percentages of 100. Since the same unit may have more than one individual faculty member assigned to it, the total actual assignment value may come from several different academic assignment reports.

(24) Academic Administrative Compensation.

The academic assignment report contains a section which identifies the academic administrative assignments of each staff member. These assignments are to be identified with the activities or organizational unit for which the administrative responsibility is held by the staff member. From the actual assignment values of these assignments, it is possible to ascertain the portion of the staff member's salary for that particular period which should be allocated to academic administration. This amount, which represents the academic administrative compensation, should then be allocated to the environmental unit or units for which the individual holds a responsibility. If only one environmental unit is concerned, all the compensation will be allocated to that unit and the FTE would be the assignment value of the academic administrative assignment. If, however, the academic administrative assignment is a responsibility for more than one environmental unit, the compensation should be allocated to each of the units on the basis of the full-time-equivalent value of the academics for whom the academic administrator is responsible in exactly the same manner as was the case for non-academic and administrative staff. Two figures are entered on the analytic unit data sheet--the FTE academic administrative equivalent in terms of numbers of people responsible for the unit and the dollar compensation which is allocated to the unit.

Special Data Centers

For certain types of analytic units, both environmental units and support units, it is necessary to identify certain items which are not normally found in the major institutional data centers of the payroll and personnel records, the office of the registrar, and the central accounting office and which do not appear in the academic assignment report. These data are currently available in all institutions but are normally not found in one central place. It is necessary for the institution to recognize or establish special data collection centers for the collection of this type of information.

(25) Instruction.

Within Instruction there are two classifications of analytic units which require this special type of data. The first of these are environmental units in counseling and the second are the support units in admissions.

a. Counseling

The utilization factor for environmental units in academic counseling established in this procedure is that of counseling registrations or the number of students being counseled by any one staff member. It is necessary that this number be determined for the environmental unit, which is the counseling load of any one academic staff member. Presumably the department which has responsibility for that staff member would assign his counseling responsibilities as well and thus would have this information available. The academic assignment report, as illustrated previously, does identify these counseling registrations. A departmental record should, however, also be maintained as a check on the academic assignment report.

b. Admissions

Two items of information should be identified with environmental units in the admissions process. These are the total number of applications processed and the total number of students admitted. This information normally would be found in the admissions office itself.

(26) Research.

a. Research Projects

The utilization factors for research projects are the full-time-equivalent staff members participating in the project, and this factor would be identified with the project through the academic assignment report. However, the procedure also calls for the identification with each project of certain types of information which tend to indicate the degree to which that project is closely linked with the teaching program of the institution. These two items of information are the number of teaching staff participating in any project and the number of research registrations or students participating in any project. It will be necessary for these two items of information to be ascertained for each project.

Presumably, the data center for the collection of such information would be the department supervising the project.

b. Provision of Special Research Facilities

Two items of information are necessary in order to fully analyze the support units classified under the provision of special research facilities. These are the number of research projects utilizing the particular unit being analyzed and the number of individual academic staff (not full-time-equivalent) utilizing the special research facility. Presumably, this information would be recorded and collected in the facility itself.

(27) Services to the Public.

a. Dissemination of Knowledge through Other Than Organized Teaching

Environmental units classified under the dissemination of knowledge through other than organized teaching present a wide variety of activities which are discussed at some length on pages 157-164 of the main text. These include such things as agricultural and home demonstration extension, community TV and radio, university press, scholarly journal or magazine publication, elementary and secondary school surveys, and consulting services. For each of these the utilization factor would be different. It would in all cases, however, be a factor which measured the number of persons or groups served by that particular unit or activity as, for example, the number of individuals served by a particular county agent's office. This number, in all cases, should be identified with the unit and would probably be available only within the unit itself.

b. Regulation and Inspection

The environmental units in regulation and inspection call for a utilization factor which involves a count of the number of licenses issued or inspections performed, as the case may be. This information would have to be gathered in the regulatory department itself.

(28) Services to the Academic Community.

Almost all of the support units within Services to the Academic Community carry the universal utilization factor of total student courses in the institution. This figure would, of course, be available in the registration data. In addition, however, there are special utilization factors as described for each category below.

a. Student Development

Three items of information are to be obtained from a data center within the counseling (social-psychological) office and the placement and guidance office of the institution: the number of students counseled, the number of tests administered, and the number of students placed by the placement office.

b. Student Financial Aid

For support units in the operation of student financial aid offices and services, it is necessary to obtain the number of students processed and identify that figure with the support unit. For support units within the category of payments made directly to or constructively for students, it will be necessary to ascertain the number of students receiving each type of free grant, with the identification of all such students by degree sought, field of study, progress category, and course load.

c. Care, Subsistence, and Recreation

Support units in Care, Subsistence, and Recreation have several different types of utilization factors which are to be recorded, depending upon the particular type of support unit. This information would normally be found within the organizational unit administering the particular support unit. The listing below shows the information which would be necessary to identify with each such unit:

Housing units	Student and staff rentals for each unit
Food service units	Meals served by each unit
Store units	Individual sales
Student center units	Individuals served
Health service units	Individuals served
Parking lots or structures	Number of spaces and number of users
Intercollegiate athletics programs	Students participating and numbers of admissions (or attendance)
Individual student organizations and activities	Individuals served and individual cultural programs and activities admissions (or attendance)

Calculated Data

The many items of information which must be identified with each analytic unit are calculated from data already identified with the unit. In the case of environmental units it is necessary to calculate the direct academic compensation applicable to that unit and the immediate support applicable to that unit. In the case of support units, it is necessary to separate personal compensation from supplies and expense, but these two items will have already been identified with the unit under items 18(b) and 22 above. In the case of both environmental and support units, it is necessary to come to a total of the expenses applicable to that unit.

(29) Direct Academic Compensation.

To calculate direct academic compensation applicable to any unit, it is necessary to multiply the total academic compensation per term applicable to the unit by the actual assignment value of the unit. The formula, in terms of item numbers in the analytic unit data sheet, would be 17(c) x 23 = Direct Academic Compensation.

(30) Immediate Support.

The total of immediate support applicable to any environmental unit is the sum of personal compensation for non-academic and administrative staff, academic administrative compensation, and supplies and expense. This would be represented in the analytic unit data sheet as 18(b) + 24(b) + 22 = Immediate Support.

(31) Total Expenses.

The total expenses for any environmental unit would be the sum of direct academic compensation and immediate support, or 29 + 30 = Total Expenses. For support units it would be the sum of personal compensation of non-academic and administrative staff and supplies and expense, or 18(b) + 22 = Total Expenses.

In all cases these totals should be calculated and recorded for each unit.

Examples of the Identification, Classification, and Description of Analytic Units

The process of identifying, classifying, and completely describing the analytic units can perhaps best be understood through the medium of some examples. Figure 8 presents the completed analytic unit data sheets for three analytic units in an institution. Actually, individual data sheets would be made up for each of these units, but for ease of presentation here they are combined on one sheet. Three units are involved: Unit A, a course offered in the physics department--Physics 453, Introduction to Theoretical Physics; Unit B, a research project in molecular structure administered by the physics department; and Unit C, consulting services furnished by the Department of Physics to the State Nuclear Commission.

The first step involves the determination of the functions and sub-functions with which these particular activities are to be identified. Since Unit A is a degree-credit course, it is classified as an environmental unit within the category of Organized Teaching of Degree-Credit Courses in the function of Instruction

FIGURE 8

SAMPLE ANALYTIC UNIT DATA SHEET FOR THREE UNITS

	Unit A Physics Course	Unit B Physics Research Project	Unit C Consulting Services to State Nuclear Commission
Function and Sub-Function	11	21	32
Unit Classifications			
1. Unit Identification			
a. ID Number	82	727	1026
b. Special Identification	453-0	218	---
2. Joint Course Division Meetings	---		
3. Lowest Organizational Unit	26	26	26
4. Second Organizational Unit	3	3	3
5. Location	1	1	5
6. Credits	4		
7. Contact Periods			
a. Number Per Week	2		
b. Minutes Per Period	90		
8. Special Classification	13	02	06
9. Subject Matter	23	23	23
10. Level of Instruction	3		
11. Academic Load Policy	.33	.33	.10
12. Optimum Assignment Value	.33	.33	.10
13. Optimum Size in Student Registrations	20		
Term Identifications			
14. Term	166	166	166
15. Length in Weeks	16		
16. Term Hours	48		
Payroll and Personnel Data			
17. Academic Staff			
a. ID Number	303-14-6035	303-14-6035	303-14-6035
b. Rank	2	2	2
c. FTE Academic Compensation Per Term	8000	8000	8000
d. Student Status	N	N	N
18. Non-Academic and Administrative Staff			
a. Number - FTE	.042	1.042	.013
b. Personal Compensation	67	2567	20
Registration Data			
19. Total Student Registrations	16		
20. Total Student Courses	16		
21. Student Classifications			
a. Degree	1 1 3 4		
b. Field of Study	6816 6813 6816 6816		
c. Progress Category	7 7 1 2		
d. Course Load	4 4 3 2		
e. Number of Students	12 2 1 1		
Central Accounts Data			
22. Supplies and Expense	752	7376	228
Academic Assignment Report			
23. Actual Assignment Value	.33	.33	.10
24. Academic Administrative Compensation			
a. FTE	.021	.021	.006
b. Amount	248	248	75
Special Data Centers			
25. Instruction			
a. Counseling			
(1) Number of Counseling Registrations			

FIGURE 8--Continued

Function and Sub-Function	Unit A Physics Course	Unit B Physics Research Project	Unit C Consulting Services to State Nuclear Commission
b. Admissions			
(1) Total Applications Processed			
(2) Total Students Admitted			
26. Research			
a. Research Projects			
(1) Number of Teaching Staff Participating		1	
(2) Number of Research Registrations			
b. Provision of Special Research Facilities			
(1) Number of Research Projects Utilizing Unit			
(2) Number of Individual Academic Staff Utilizing Unit			
27. Services to the Public			
a. Dissemination of Knowledge			
(1) Special Service Indices--Number of Academic Staff			.10
b. Regulation and Inspection			
(1) Licenses Issued			
(2) Inspections Performed			
28. Services to the Academic Community			
a. Student Development			
(1) Number of Students Counseled			
(2) Number of Tests Administered			
(3) Number of Students Placed			
b. Student Financial Aid			
(1) Number of Students Processed			
(2) Number of Students Receiving Grants (by type of grant)			
c. Care, Subsistence, and Recreation			
(1) Special Service Indices			
Calculated Data			
29. Direct Academic Compensation	2640	2640	800
30. Immediate Support	1067	10191	323
31. TOTAL EXPENSES	3707	12831	1123

and thus bears the functional code number 11. Unit B is a research project which classifies it as an environmental unit under Research with a code of 21. Unit C represents one of the ways in which the resources and knowledge of the institution are carried to the general public through means other than Organized Teaching and thus classified as 32, Dissemination of Knowledge through Other Than Organized Teaching within the function of Services to the Public. Thus all three units are environmental units rather than support units.

Unit Classification

The second step is concerned with the more permanent classifications of these three units. Each of them is given an identification number by the institution--82 for Unit A, 727 for Unit B, and 1026 for Unit C. Unit A, as a course, needs special identification. The identification here is the actual course number 453 and, since there are no multiple sections to the course, the total number would be 453-0, meaning course 453 with no multiple sections. The research project likewise needs special identification, and this is the actual project number given to it by the institution in the office of research, which, in this case, is 218. Unit C needs no special identification since consulting activities are best identified by the academic staff member performing those activities.

Unit A has no joint course division meetings, so no entry is made in this space. The lowest organizational unit responsible for all three of these environmental units is the Department of Physics which, in this institutional code, is department number 26. The second organizational unit is the College of Art, Science, and Literature which bears the institutional code of 3.

Both Unit A and Unit B are located on the campus and thus bear a code of 1. The activities of Unit C, however, are carried on away from the campus in the state at large (in this case in the state capital) and thus carry the location code of 5 which indicates general state-wide extension (going from the campus to various locations in the area).

The next three classifications apply only to the organized teaching represented by Unit A. Four credits are given for the course, and it meets two times a week for 90 minutes each time. Thus the entries under contact period are 2 for the number per week and 90 for the minutes per period.

The special classification code for Unit A would be 13, which indicates the laboratory form of group instruction when used for a unit in Organized Teaching of Degree-Credit Courses. In the case of the research project, the code is 02 for a project Involving Teachers But Not Students. Unit C would carry the code of 06, Consultant Services.

The subject matter in all three cases is 26, which is the institutional code for physics. Here we are concerned with the code for subject matter rather than department although, in this case, the two are identical. Level of instruction applies only to Unit A, and the course has been classified by the head of the physics department as a course designed for graduate students and advanced undergraduate students which is coded as 3.

The academic load policy for all three units has been expressed in terms of percentages of full-time load. Thus, the academic load policy and the optimum assignment value for each unit would be the same. In the case of Unit A and Unit B, they are .33, or one-third of a full load. In the case of Unit C, the academic load policy and the optimum assignment value are .10. Unit A has an optimum size in student registrations of 20.

Term Identification

The term in this case is the first semester of the academic year 1965-66 which is coded as 166. It is sixteen weeks in length, so the number of term hours involved in Physics 453 (Unit A) would be calculated by multiplying the number of contact periods per week times the number of minutes per period times the length of the term in weeks and dividing by 60. Thus, the equation (2 x 90 x 16) ÷ 60 = 48 (number of term hours).

Payroll and Personnel Data

Once the assignments have been made by the institution for the term, it becomes possible to accumulate the payroll and personnel data which should be identified with these units from those sources within the institution. In this case the same academic staff member, J. D. Reep, is carrying out all three of these assignments. The ID number used for Mr. Reep is his social security number, 303-14-6035, and this number is entered on the analytic unit data sheet. His rank is 2 for associate professor.

From the payroll data it is found that Mr. Reep receives a compensation of $14,000 from the university for the academic year. Since the academic year at this institution is defined as two semesters, one-half of this amount, or $7,000, would be applicable to this particular term. In addition, the State Nuclear Commission pays the university $3,000 a year for consulting services, which amount is also paid to Mr. Reep. Since this responsibility carries on for the entire year, only one-third of the amount, or $1,000, is applicable to the term under analysis. Thus, his total academic compensation for the term is $8,000 ($7,000 + $1,000). Mr. Reep is a full-time employee of the institution, so his available time equivalent is 1.00. Thus, his total professional compensation and his FTE academic compensation would be the same as calculated by the formula Actual Academic Compensation ÷ ATE = FTE Academic Compensation ($8,000 ÷ 1.00 = $8,000). This would be the figure entered opposite FTE academic compensation per term for all three units. Mr. Reep is not a student, so he would be classified as N in this category for all three units.

The second major item of information stemming from the payroll and personnel data is the number and personal compensation applicable to each unit from non-academic and administrative staff who can be identified with the unit. The Department of Physics employs a departmental secretary at a total compensation of $4,800 per year. One-third of this amount, or $1,600, is applicable to this term. Since her responsibilities extend over all of the activities of the department, this amount of money cannot be attributed to any one unit but is to be apportioned to the individual environmental units in proportion to the assignments of the full-time academic staff members in the department. The department has eight academic staff members, including Mr. Reep who is responsible for these three units. Each of the eight staff members, being full-time, would carry an equal proportion of her compensation, or $200. This is actually as far as the calculation can be carried at this point. When it is finally determined, as is the case here, that the actual assignment value of each of these units is .33, .33, and .10 of the staff member's time, then this portion of the $200 is allocated as personal compensation for non-academic administrative staff to each of these units. In this case it would be $67 to Unit A, $67 to Unit B, and $20 to Unit C. The secretary's time would be divided up proportionately. One-eighth, or .125, of her time would follow Mr. Reep, and .33, .33, and .10 of that figure would be allocated to each unit, respectively, for non-academic and administrative staff, or .042 for Units A and B and .013 for Unit C.

In the case of Unit B, however, there is an additional non-academic staff member who has been assigned to the research project. The project employs one laboratory assistant at an academic year compensation of $5,000, of which $2,500 is applicable to this particular term. Thus, the total personal compensation for Unit B would be $67 plus $2,500, or $2,567, and the number of FTE non-academic and administrative staff would be 1.00 plus .042, or 1.042.

Registration Data

After the final date for dropping of classes at this university, it is possible to secure the registration data for Unit A, the course in physics. The total number of student registrations for this term is 16. Since this is not a multi-division course, the total student courses would be the same number. The sixteen students who are registered in the course are identified in the office of the registrar and their classifications recorded on the data sheet. Twelve of the students are in the bachelor's degree program (degree program 1) in physics (field of study 6816) and are all in progress category 7, which indicates that they have one more term to complete after this one before graduation. All are carrying a course load of four courses. Two students in the course are seeking a bachelor's degree in meteorology (6813). One is a master's degree candidate (degree 3) in physics, and one is a doctoral candidate (degree 4) in physics. These classifications are entered on the analytic unit data sheet for Unit A.

Central Accounting Data

Following the close of the term, it becomes possible to secure the cost of supplies and expense applicable to each of these particular units from the central accounts of the institution. For general expenses of the Department of Physics, the procedure is the same as was followed with non-academic and administrative staff. Total expenses for the department for the term were $18,226, or $2,278 for each of the eight FTE academic staff members. Of this figure, .33 is allocated to Unit A, an additional .33 to Unit B, and .10 to Unit C. These figures would be $752 for Unit A and for Unit B and $228 for Unit C. In addition, the physics research project incurred expenses of $6,624 for supplies and expense during the period under analysis. This figure added to the $752 gives a total of $7,376 for supplies and expense which must be identified with Unit B.

Academic Assignment Report

The actual assignment value of the units shown in the example are determined from the academic assignment report of the academic staff member, J. D. Reep, who is assigned to those units. Figure 9 gives a sample copy of Mr. Reep's academic assignment report. The assignments are furnished by the department to the central office of the institution responsible for the analysis, and columns 1 and 2 are completed by that office. Column 1, the optimum assignment value, comes from the records of the institution. It will be noticed that Physics 453 carries a .33 assignment given on this sheet, as does research project 218. Likewise, the consulting activity bears a .10 assignment. Other assignments total an additional .29, so that the total of the optimum assignment values is 1.10. Actual assignment values for any one staff member cannot exceed his available time equivalent which, in this case, is 1.00. In Column 2 the central office has adjusted the assignment values proportionately to make them total 1.00. At this stage the academic assignment report is submitted to the physics department head for his review and ultimate approval. If he concurred with the adjustments made by the central office, he would merely sign the report. In this case, however, he did not concur with these adjustments.

FIGURE 9

SAMPLE OF COMPLETED ACADEMIC ASSIGNMENT REPORT

Term: 1-66
Name: Reep, J. D.
ID Number: 303-14-6035
Student Status: N
Department: 26

Available Time Equivalent: 1.00
Total Professional Compensation (Term): $8,000
FTE Professional Compensation (Term): $8,000

Academic Assignments	Optimum Assignment Value	Adjusted Assignment Value	Actual Assignment Value
Instruction			
Organized Teaching			
1. Physics 453	.33	.30	.33
2. Physics 101 Lab 3	.20	.18	.15
3. Physics 600 - Major Professor	.05	.045	.03
4.			
5.			
Academic Counseling			
Assigned Counseling of Students in Programs			
1. Total Number 4	.05	.045	.03
2. Identification of Students (by ID No.)			
304-16-2823	xxxxxxxxxxxxxxxxxxxxxxxxx		
303-12-4845	xxxxxxxxxxxxxxxxxxxxxxxxx		
305-14-1615	xxxxxxxxxxxxxxxxxxxxxxxxx		
304-12-4141	xxxxxxxxxxxxxxxxxxxxxxxxx		
Graduate Committee Assignments (Other Than Chairman)			
1. Total Number 2	.04	.035	.03
2. Identification of Students (by ID No.)			
304-14-1216	xxxxxxxxxxxxxxxxxxxxxxxxx		
303-16-3028	xxxxxxxxxxxxxxxxxxxxxxxxx		
Research			
Research Projects			
1. Physics 218	.33	.30	.33
2.			
3.			
4.			
Faculty Development Time			

FIGURE 9--Continued

Academic Assignments	Optimum Assign-ment Value	Adjusted Assign-ment Value	Actual Assign-ment Value
Services to the Public			
Organized Teaching			
1.			
2.			
3.			
4.			
Dissemination of Knowledge			
1. Consultant to State Nuclear Commission	.10	.095	.10
2.			
3.			
4.			
Regulation and Inspection			
1.			
2.			
Academic Administrative Assignments			
1.			
2.			
3.			
4.			
Unassigned Time			
Assigned Duties Other Than the Above Academic Assignments			
	1.10	1.00	1.00

(Enter as totals in these two columns the ATE shown in upper right hand corner of the report. Actual Assignment Values and Adjusted Assignment Values must add to the ATE figure.)

Signature of Department Head

It was his belief that the assignments for Physics 453, for research project 218, and for the consulting activities of the State Nuclear Commission should bear their optimum assignment values. To compensate for this, he reduced still further the adjusted assignment values for the lab section for which Mr. Reep was responsible, for his responsibilities as a major professor for a graduate student registered in Physics 600, and for his counseling and graduate committee assignments. Thus the actual assignment values for the three units which are being classified here are .33 for Unit A, .33 for Unit B, and .10 for Unit C. Once he has completed the form, the department head signs it and returns it to the central office. It is from these actual assignment values that the calculations for non-academic and administrative staff and for supplies and expense were made.

From the academic assignment report a second calculation is possible. Mr. Reep had no administrative academic assignments. From the academic assignment report for the head of the Department of Physics, however, it was determined that .50 of his time was applicable to the administration of activities within the physics department. Mr. Kilmer, the department head, is provided compensation totaling $18,000 for twelve months. One-third of this, or $6,000, is applicable to this particular term. With eight full-time-equivalent staff members in the physics department, one-eighth of this amount, or $750, is applicable to each staff member, including Mr. Reep. For these particular units the actual assignment values of .33, .33, and .10 are applied to this figure to obtain the amount of academic administrative compensation applicable to these units. This amount is $248 for Unit A, $248 for Unit B, and $75 for Unit C. The same process gives the full-time-equivalent administrative academic staff applicable to these units, or .0213 for Unit A, .0213 for Unit B, and .006 for Unit C.

Special Data Centers

Only two special data centers contain information applicable to the units which are illustrated here. For Unit B it is necessary to know the number of teaching staff participating in the research project since that project has been classified as one involving teachers but not students. Since Mr. Reep was involved in the project, the figure here is 1. As will be noted, however, this figure is not an FTE figure but a counting of the number of individual teaching staff who worked on the project. In the case of Unit C, special service indices are often applicable to environmental units within the category of Dissemination of Knowledge through Other Than Organized Teaching. Since the recipients of the consulting service are not easily susceptible to quantification, the utilization factor for units of this type is the FTE number of academic staff members performing the service. Thus the entry for special service indices would be .10, the same as the assignment value of the unit.

Calculated Data

From the information now identified with the three units illustrated here, it becomes possible to calculate the direct academic compensation, the immediate support, and the total expenses which are applicable to these units for purposes of this analysis. The formula for direct academic compensation is 17(c) x 23. In the case of Unit A, this would be \$8,000 x .33 = \$2,640. For Unit B, the calculation would be the same, \$8,000 x .33 = \$2,640. For Unit C, it would be \$8,000 x .10 = \$800.

Immediate support is calculated by the formula 24(b) + 18(b) + 22. For Unit A, this would be \$248 + \$67 + \$752 = \$1,067. For Unit B, it would be \$248 + \$2,567 + \$7,376 = \$10,191. For Unit C, it would be \$75 + \$20 + \$228 = \$323. Thus, total expenses applicable to Unit A in this term are \$3,707, for Unit B, \$12,831, and for Unit C, \$1,123. The unit costs are calculated by dividing the total expenses of the unit by the utilization factor. In the case of Unit A, the calculation would be \$3,707 ÷ 16 = \$231 per student registration; for Unit B, \$12,831 ÷ .33 = \$38,882 per FTE research staff member; and for Unit C, \$1,123 ÷ .10 = \$11,230 per FTE academic staff member.